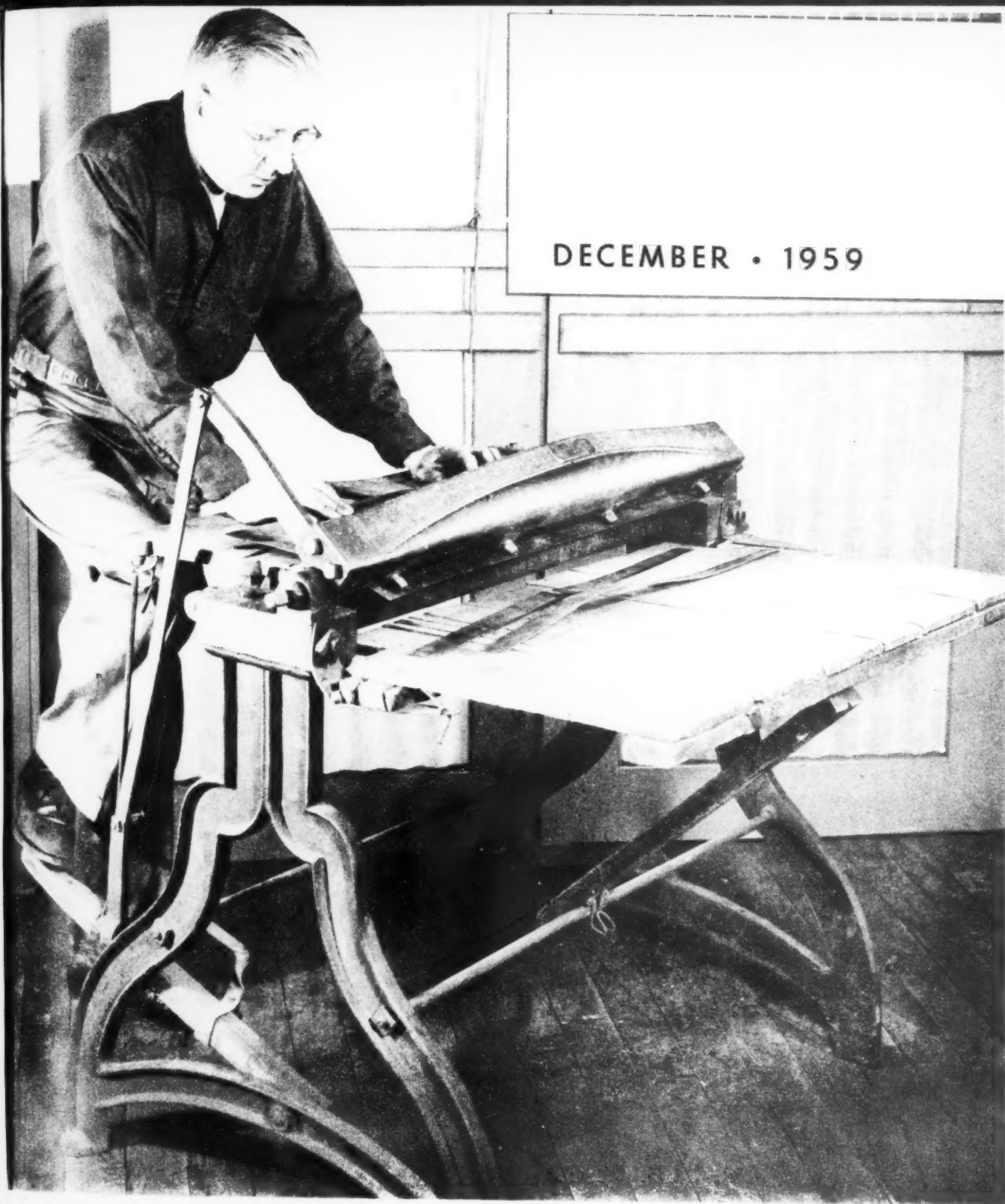
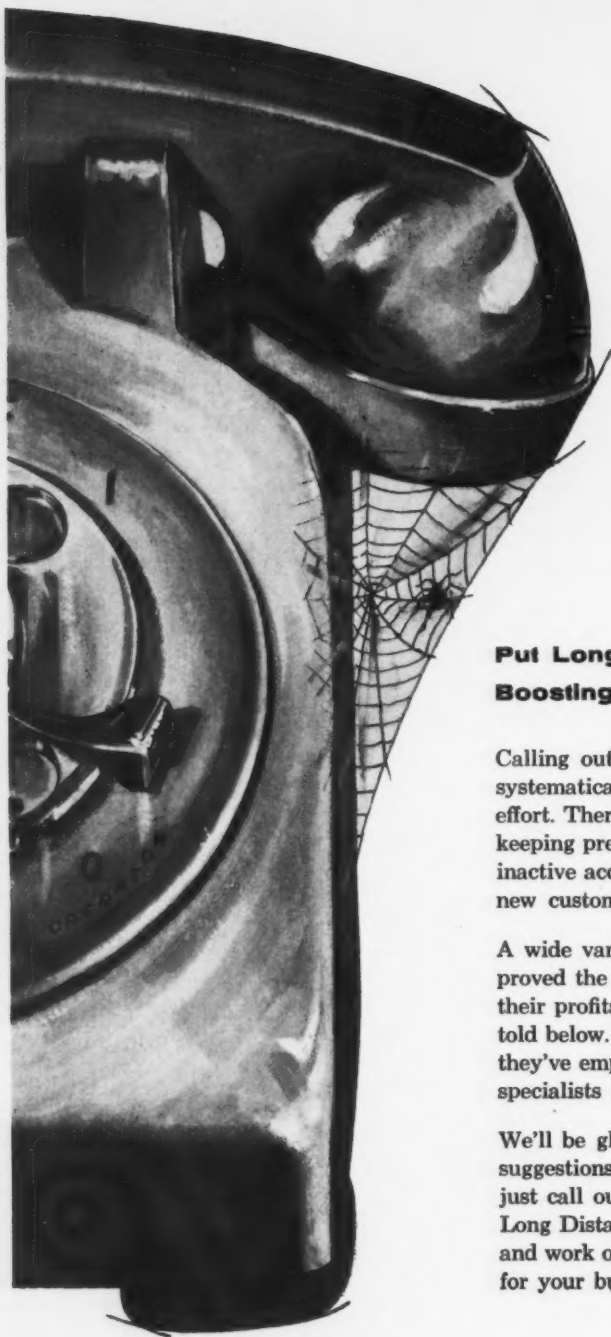


DECEMBER • 1959





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A MANUFACTURER of custom extrusions calls out-of-town customers to build good will. Calls costing only \$14.85 produced \$1,821 in orders in one month.

**THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY**

# CONNECTICUT INDUSTRY

DECEMBER • 1959

VOLUME 37 NUMBER 12

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THIS MONTH'S cover photo shows a 115 year-old sheet metal shear which still gives good service at the plant of Peck, Stow and Wilcox in Southington.

L. M. BINGHAM, Editor

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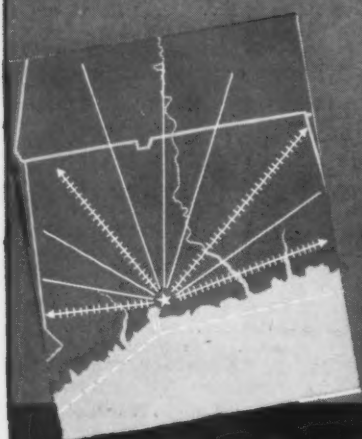
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# The Magic of Believing

♦ THE Christ Child, whose birth we honor this month, came into a world one half of which was ruled by Romans who were feared by the other half. It was a cruel world of cold war, hot brush fire skirmishes and unwarranted punishment for any of His people who were even suspected of infringing on the many rules, known and unknown, laid down by Rome to crush the hope of successful rebellion among its conquered people.

And yet, despite the apparent invincibility of the Roman armies and the ruthlessness of their governors, there was hope among the captive Jews that one day a saviour would appear to lead them out of their captivity. The "magic of their believing" came true on that starry cold night in Bethlehem nearly 1959 years ago.

Although, in maturity, the Christ Child disappointed his people by proclaiming love and brotherhood and a brighter kingdom to come in the hereafter, rather than becoming a conquering earthly king, He changed the destiny of mankind by setting forth a new code of conduct for men and nations.

Through dark ages of massacre, famine, pestilence and all types of persecution, His message of hope for the ultimate triumph of His philosophy of justice and human dignity was accepted by an ever-growing number until a portion of its concept was given expression in our form of government as sketched in broad outlines by the Declaration of Independence and the Constitution of the United States.

Despite the greatest demonstration of human progress ever made in all history, by even a partial acceptance of His philosophy here in America for nearly 183 years, a new tyranny in Soviet Russia threatens from without, while its philosophy of pure materialism is undermining our faith in the Hebrew-Christian philosophy that gave us the freedom that fostered our rise to greatness as a nation. Even as we are about to celebrate this Christmas, which should be a reminder that no tyranny lasts and that no man need forsake hope, many in our midst are accepting the idea that the "wave of the future" lies in the acceptance of a socialistic state. Too many who believe in the freedom concept are becoming disheartened. Leonard E. Read, president, The Foundation for Economic Education, summed up the situation admirably in a recent declaration to Foundation members and friends, which we quote, in part, as follows:

"A feeling of hopelessness is the straw that could break the back of the freedom movement—for real freedom will never be achieved without faith. People do not continue to work at a problem after its solution appears hopeless to them.

"Too many opponents of socialism—once convinced that there is no simple remedy at hand, and aware that the problem at issue is nothing less than

altering the mores of a vast society—tend to give up the ghost. Unnerved by the dimensions of the job, they say, 'Oh, what's the use!'

"The tale of two frogs, dumped into a can of milk, comes to mind. One frog, quick to concede the hopelessness of his situation, gave up and promptly drowned. The other frog was of sterner stuff:

So he kicked and splashed and he slammed and thrashed,

And he kept on top through all;

And he churned that milk in first-class shape

In a great big butter ball.\*

"Experience leads one to believe that the forces which have to do with shaping human destiny are of no help to those of little faith. Indeed, they appear to have no truck with people who lack confidence in what determined effort can accomplish.

"On the other hand, these forces—call them by your own name—tend to cooperate with those who believe they can accomplish the seemingly impossible and never call it quits until the game is over. There are men, be it observed, who do, in fact, move mountains. But they are not the men who doubt that mountains can be moved.

"Take note, for instance, of golfers on putting greens. There are those who doubt they can sink any but the simplest putts. And there are those who have confidence that they can sink every putt—they actually believe this! The former are miserable performers. Among the latter are to be found the skilled and all the miracle putters.

"Miracles are all about us—a common loaf of bread is packed with wonders. Those who have no sense of the miraculous, who have no faith in achieving anything beyond what the unaided individual can accomplish, will be of little help in ridding our society of socialism. The problem seems too hopelessly impossible to them and they quit. But the undaunted, those who know the magic of believing, will make progress, for the forces which are available to those who believe will lend a hand to multiply their efforts."

Christmas is the season to renew hope and to buttress it with the faith and work that made our country the leader of the free world. With this "magic of believing" in our hearts, as symbolized nearly 2,000 years ago by the birth of the Christ Child, neither cold or hot wars can prevent the victory of freedom over the tyranny of government by socialism in any form.

Let us give thanks this Christmas to our Creator for the gift of His Son; for our freedom and material blessings, and above all, for those spiritual qualities of inspired work, hope and faith that worked together with Him in their creation.

\* Day, Holman F. *Story of a Kicker*.

# Century Old Shear: Symbol of PEXTO Quality

■ OVER 100 years old, yet it can still shear smoothly. That's the claim for one of the sturdy products by Pexto, manufacturers of machines and tools for metal fabricating.

The Peck, Stow & Wilcox Co. of Southington, Conn., serving a worldwide market with advanced machines, points with signal pride to a veritable museum piece, its "No. 1" foot squaring shear, (photo on front cover) which only recently was found still operating with accuracy at the Bloom Furnace Co. in Pekin, Ill.

Exact manufacturing date for old "No. 1," with its antiquated sewing-machine legs and pivotal action, is still unknown but available records trace its production back to the period between 1845-1855. Since "No. 1" is still visibly stamped on the machine it is probably the first foot squaring shear ever made in this country.

The old shear consists of open frame castings with a cutting capacity of 30 inches for iron and tin sheets. In its heyday, the machine sold for \$55, blades \$14 per pair. The attached wooden table was assembled with hand-cut nails!

## Old Shear Now On Exhibit

The shear, undeniable proof of machinery built for long-life, was immediately purchased back from the Illinois company by The Peck, Stow and Wilcox Co. Today, this company won't part with the shear, using it only for exhibition and demonstration, not too many rooms removed from where Pexto makes their latest models of foot and power-operated shears and tools to fully equip the average, up-to-date sheet metal working shop. The old shear, antiquated-yet-able, is "out to pasture" alone, but back in its big-selling days it had plenty of company in the Pexto world of products.

## Pexto's Historic Background

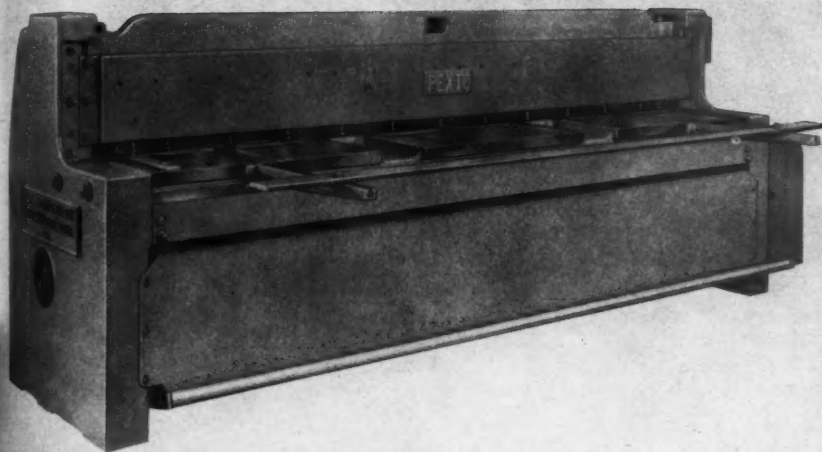
The company, whose operations trace back to 1785 in the tinware center of Southington, Conn., won over such regular customers as the rural Yankee Pedlars, whom Pexto kept well stocked with a wide range of tinned kitchenware and tableware.



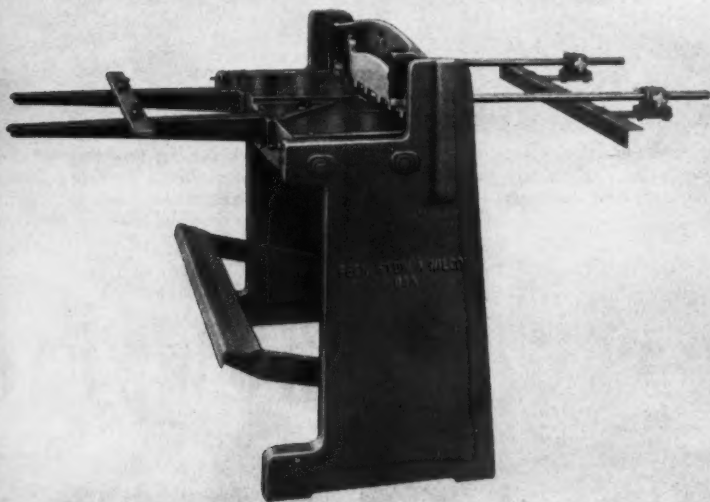
Pexto foot shears ready for shipment.



Students learn on Pexto equipment.



Industry uses Pexto Power Shears for production of cut blanks.



Here is a modern version of Pexto's precision foot shear.

Additional items offered by the company were the old schoolroom coat hooks, curry-combs, sad-irons and stands, carriage bolts and gate hinges, ornamental and elaborate ink stands, which featured hand-made copper bases that sold for \$6 per dozen.

Both sturdiness and fancy appearance were desired of products in the old Pedlar days, and Pexto filled the orders with such "snazzy-looking" items as pin trays, paper weights, flower-pot brackets, bird cage hooks and receptacles for those once-favored, finger-long wooden matches.

Indeed, the Yankee Pedlar had a lot of things from Pexto . . . but just what did such an uncanny country traveler see in Pexto products? Maybe he was sold on the solid workmanship. For it was with true industrial know-how that the company's history began. Assertively enough, the first stages of

the firm's development were forged with "firsts."

#### **Pattison, North, Buckley Are Famous Names**

Among pioneering names in the company background was a Colonial tinsmith, Edward Pattison, who in the middle 18th Century was the first in America to mold articles out of tin plate from England. The early hand tools used were crude enough yet they were capable of launching the industry of tinworking in the U. S. . . . right in the Southington, Conn. area, home of Pexto today.

Later personalities, trailblazers in their own right, included metal craftsman Edmund North who, during the time surrounding the year 1800, was one of the earliest teachers of the tooling trade. Then there was William Buckley, Sr. and family, originators of

shears for cutting metals in circles and the first to form snips and bench shears in dies, by hammering white heated steel into the die with a hand hammer.

#### **Peck, Stow And Wilcox—All Early American Names**

Other early names are those of Franklin Roys, the Wilcox brothers and Solomon Stow, who was making gear wheels and other machine parts. Mr. Stow later took out patents for an early Moore double reamer and the first forming machine designed by the company. Other prominent figures were Josiah Wilcox, toolmaker and Seth Peck, who built a tin business that became nationwide even before this country had laid a foot of railroad track.

These men for their early time, operated a surprisingly big business. They advertised widely and sold a "full line" of sheet metal machines for folding, grooving, turning, wiring, burring, and setting-down and they were the first in the country to make hand-lever squaring machines, which preceded the old "No. 1" foot-operated unit. Thus was born The Peck, Stow and Wilcox Co.

#### **Neal Is First Pexto President**

Pexto's first president, Roswell A. Neal, was an able and ambling trail blazer in an administrative capacity. Mr. Neal traveled the country seeking out new markets while formulating a sales merchandising program which continues, in essence, today. But while duly proud of its "firsts" of yesterday, Pexto, with new production and research facilities, strives to fill customers' needs of today and tomorrow.

#### **Ahern Now Heads Pexto**

Typical of the Pexto items filling present orders is the new line of power-packed, power-operated squaring shears, which embody reciprocating action and precision front and back gauges. These shears are capable of cutting, cleanly and accurately, sheets of steel, stainless, copper, brass, bronze, plastics, fiberglass, fiber-board and synthetic and printed circuit material.

Also, today, Pexto furnishes the workers of sheet metal, machines and hand tools of every description . . . from setting down hammers and snips to modern cutting, folding and forming machines. Under the able direction of R. J. Ahern, its president, this company continues to build new machines and tools to meet the needs of ever changing markets.

#### **Pexto's Place In Industry**

Pexto products are sold the world over to many types of users, large and small. In fact, wherever sheet metal is cut, bent, shaped, or formed the name Pexto is known. There is, however, one

(Continued on page 32)



Quality control studies showed advantages in inspection after each operation. Operators are their own inspectors.



Here a high frequency induction heater expands the outer ring momentarily allowing the inner ring, balls and retainer ring assembly to drop into place.



Special ball track honing machines developed by Norma-Hoffmann engineers provide a finer surface finish that reduces noise level of bearing and insures lower starting and running torque.



Inside diameters of inner and outer races are ground on shoe-type centerless internal grinder. A special fluid pressure clamping device was developed to hold the larger work pieces against rotating backing plate.



The ultra-precision grinding area is fully air conditioned with temperature held within one degree of 70°F and relative humidity between 45 and 50 per cent.

## Showplace 0



The rotary surface grinders that do the final pre-load grinding are equipped with automatic in-cycle air gaging that measures the height of the ground face above the chuck with each stroke of the table.



Finished races are washed, rinsed and rust inhibitor is applied before moving to the assembly areas separated from grinding area by window pierced partition.

# of Ultra Precision

■ **ANTICIPATING** major growth within the next few years in precision machine tools, aircraft auxiliaries, woodworking machinery, computers and memory devices, high speed gear trains and similar applications involving speeds in excess of 50,000 rpm, Norma-Hoffmann Bearings Corporation, Stamford, has recently completed and started operation in a plant addition designed and tooled to produce ultra-precision angular contact bearings to meet the demand of the anticipated growth pattern.

Designed and built by the company's own engineering and operating personnel, the new facility is capable of producing high precision bearings with a value of more than \$1 million annually. The air conditioned and humidity controlled facility contains "the most modern machinery, methods and instruments available to the bearings industry," according to Richard D. Robertson, vice president in charge of manufacturing.

## Plant Layout

Ultra-precision operations are sealed from the main plant, with an air lock anteroom where personnel entering can wash and change into special shop coats. Grinding and assembly areas are separated by a glass and steel partition. Green-tinted light diffusing corrugated glass fiber panels inside existing windows of the building's outer wall are gasketed to exclude dust and hold down heat gain. Ceilings and walls are insulated, and the dropped ceiling of sound absorbing material contains recessed fluorescent fixtures and air diffusers.

A minimum of 80 foot candles illumination is provided at work level. Block flooring (Kreolite) is used in the grinding area, while the assembly area has a dust-free magnesite composition flooring.

Manufacturing techniques developed at Norma-Hoffmann allow simplifying specifications for preloaded bearings. Because they are ground for universal

duplex mounting, customers need order only one type and not worry about how it must be mounted.

Because of the number of precise operations that must be performed and the limited flow of work, the ultra-precision facilities utilize the concept of operator control to hold maximum loss from input to new low levels for this type of product. In-process quality control is so rigid that final inspection is principally performed for additional customer protection rather than separating "good from bad." By closely controlling tolerances of parts going into each machine, Norma-Hoffmann found it possible to control output precision to a degree heretofore unobtainable.

## Manufacturing Techniques

While a number of automation techniques are incorporated into the manufacturing operations, ultra-precision bearings manufacture does not lend itself to full automation. Among the unique or unusual practices claimed for the new facility are:

Controlled environment, with full air temperature, humidity and dust control of all ultra-precision manufacturing operations.

Super-accurate new universal pre-load grinding techniques with auto-

(Continued on page 30)



A record number of person streamed through the Connecticut Building during the 1959 Exposition, as seen from this position on the balcony.

# Exhibitors Build Good Will at Connecticut Building

By HUGO T. SAGLIO

Connecticut Development Commission



Charles Kaman welcomes Vice President Richard Nixon to Kaman Aircraft Exhibit in Connecticut Building.

■ DURING nine days of almost flawless late summer weather, men, women and children streamed through the Connecticut Building at the Eastern States Exposition to view the sample package of Connecticut that had been assembled there by the state's manufacturers, trade associations and other agencies. By closing time on Sunday, September 27th, 531,991 persons had passed through the gates onto the 185-acre Exposition grounds for an all-time record attendance.

Officials of the Connecticut Development Commission, which manages the state-owned structure on the Avenue of States, estimate that some 425,000 persons visited the Connecticut Building this year. It is safe to assume that many of them learned something new about Connecticut. It is a matter of record that many of the exhibitors learned something new about their customers, past, present and prospective.

## Long Range Values

Not all of the manufacturers who accepted exhibit space in the Connecticut Building took part in the exposition with the expectation of meeting actual customers face to face. Neither United Aircraft with a cutaway model of its J-57 power plant nor Kaman Aircraft with a three-and-one-half foot scale replica of the Rotodyne, plus continuous motion pictures of helicopters in service, had any illusions that figures on their order books would shoot skyward as a result of their exhibits. On the other hand, their money was not spent foolishly. Two results were immediately evident to the on-

looker. In the case of both companies, many of their employees and their obvious pride in association certainly did no harm to that important relationship known as employee good will. The second achievement might be called "education for the air age"—increased information about and strengthened confidence in the convenience and safety of air travel; and this one is a long-term investment in future business.

With the same realistic insight, Scovill Manufacturing wasn't hoping that the company's exhibit would persuade women to buy lipstick on the basis of the container's manufacturer rather than the advertised maker of the contents.

The company's exhibit of its Hamilton Beach line of consumer products certainly aroused the kind of interest that frequently turns into desire; but even this was surpassed by an overall public relations value. Attracted by a small model train hauling carloads of Scovill products, many Connecticut spectators got an entirely new perspective on the number and variety of items produced by one of the state's oldest manufacturers. The biggest return, however, was in the pride of the company employees as they observed strangers admiring Scovill products.

#### Stanley's Diversified Appeal

Taking full advantage of its large exhibit space, Stanley Works displayed the largest variety of its products ever shown together. Bolstered by continuous demonstrations, a multi-pronged bid for the visitors' attention was provided by an array that included everything from builder's hardware and a new concept for hanging a door over the opening to garden tools, hand tools, electric tools and drapery hardware. Consumer interest was specific and unmistakable. Stanley officials were no less impressed, however, by their employee-visitors' pride in their identification with the company and the delight with which they pointed out products in which they had had a hand. Company officials also noted significantly that some builders and representatives of other related trades, who might not get to big cities for trade shows, were in evidence and obviously impressed by product demonstrations and the comprehensive display. In this latter connection, the moral became clear that when you have a whole field of clover, you're bound to find a reasonable number of four-leaf specimens.

#### New Uses Found for Fuller Brush and Giant-Vac Products

Fuller Brush Company, as a case in point, discovered some four-leaf clo-

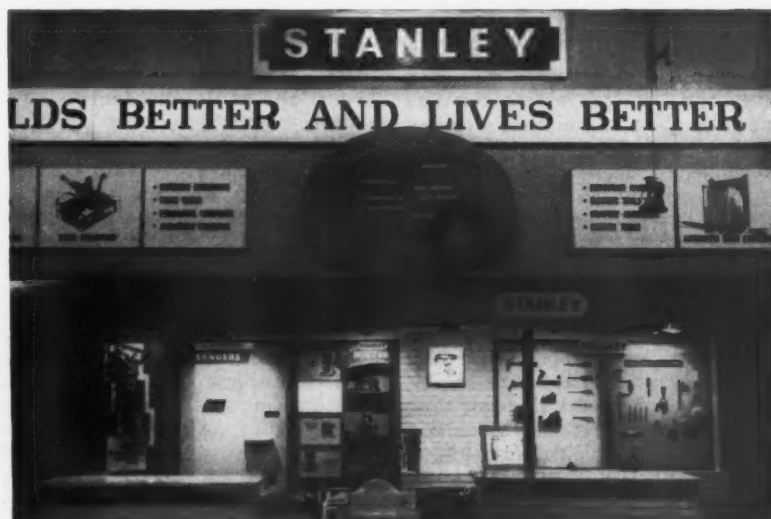
(Continued on page 34)



Fuller Brush Exhibit is visited on Governor's Day.



Selden Williams, president of Scovill Manufacturing Company, Waterbury, greets Governor at the company's exhibit.



The largest number of Stanley products ever shown together were on exhibit at the booth of The Stanley Works, New Britain.

# Views on Manufacturing Management



By EDWARD BEARDSWORTH

From personal observations during more than 16 years of varied industrial experience, Mr. Beardsworth, who is both a full-time engineer for a large Connecticut corporation and a part-time attorney during his spare hours at home, has outlined the functions of industrial departments and managerial pitfalls as he sees them. While the views of management differ widely on some of the areas under discussion, Mr. Beardsworth's comments should serve both as a reference guide and thought stimulator to all three types of management—the specialists, the young men and the "old timers."

■ IN contrasting managerial ability and specialized proficiency, it is sometimes said that "technical proficiency can be bought." Not so with the combination of intelligence, initiative, and breadth of experience that is required to establish and maintain relationships among the various specialties such that a smooth-running, economical, and effective organization results.

The difficulties of successful management are compounded by the high levels at which intense specialization is required in this technological age. Differences arise among the various Department Head-Specialists which can be resolved well only by a management which has sufficient breadth fully to understand and appreciate the basic merits in each of several conflicting points-of-view. The paragraphs that follow outline typical responsibilities of the major specialties in a medium-sized manufacturing organization together with some observations on their relationships with Management.

Sales, at a net profit, is the ultimate goal of all business activity. Most successful sales philosophies seem to lie somewhere between the extremes a) customers will seek an outstanding product or service, and b) so long as you are in the competitive range, the customer will buy from the salesman he likes best. Although entertainment and an attractive personality have their place, no sales effort can overcome a poor product, too high a price, delayed delivery, inadequate service policies or the like, in the long run. Conversely, an outstanding product in the hands of a salesman who knows his field is in a very favorable position; but even here

sales can be lost if the salesman has a negative personality and there is a logically suitable competitor.

## Causes of Dissatisfaction

In the industrial field, I have dealt with dozens of suppliers and have observed that negative customer response is rarely caused by basically inadequate engineering or manufacturing, except as they are reflections of inadequate administration (e. g.—poor quality control). More often the customer's dissatisfaction is brought about by managerial deficiencies resulting in inattention to detail, broken delivery promises and inadequate supporting activities such as data publication and field service.

## Functions of Departments

SERVICE is a function, the magnitude of which varies greatly among manufacturers, according to the nature of their products. Simple consumer goods may require no service department, while highly complicated military or industrial devices may require Service activities which outweigh any other single departmental activity. Frequently established as an arm of the sales department, Service performs its functions in two areas. First, by liaison with product engineering, service assures that necessary maintenance and parts replacement can be performed. It also provides for design and manufacture of any special field tools that may be required. Second, through publications and customer contact, Service

educates the customer in the proper use of the product, provides overhaul service where warranted, and receives and acts on customer complaints. In small organizations, the service function is sometimes performed jointly by sales and engineering. Under such circumstances, unless management is particularly alert to the possibility, the service function becomes something of an orphan because of the rush of other business. Severe customer discontent may result.

RESEARCH & DEVELOPMENT are the father and mother, respectively, of successful new products. Pure research adds to the fund of information on which applied research may draw (mutations). Applied research starts with a goal, defined by management, and seeks to create an operable model. Development modifies and nourishes the model to the point that a viable infant product is born—manufacturable and salable as well as operable. Personnel involved exclusively in this natal activity frequently tend to become insular in outlook. Management's strong hand is required to harness their enthusiasm for ultimates and direct them into economically fruitful and timely channels. A good development man never wants to let go of his newborn product—there is no end to the modifications and improvements he would try.

PRODUCT ENGINEERING performs two basic functions. Starting with a "developed" product in the form of models and/or sketches, product engineering first redesigns its components and determines their tolerances so that they can be manufactured economically, taking into account not only the functions of the parts but also the anticipated lot sizes, available production facilities, and manufacturing and procurement costs. As with development, product engineering thinking is continually influenced by Sales Department advice. Unlike development, product engineering must also satisfy

manufacturing, quality control, and service. The second function of product engineering is to define the revised product in the formal language of drawings, specifications, and lists, which are the foundation of every manufacturing effort.

Some managements lack a full appreciation of the scope of product engineering effort. Confronted with a development model or promise date, and time estimates for tool design and fabrication, one can quite innocently feel that the link between the two should take little time. Where product engineering lacks a good spokesman, this kind of thinking can result in premature release of specifications, numerous and costly engineering changes and substandard early production.

**PRODUCTION CONTROL**, through issuance of purchase order requests and shop work orders, seek to make effective the manufacturing schedule established by management. Extensive records are required to combine these functions with maintaining control of inventory and work-in-process. Various degrees of mechanization and multi-purpose systems are used to keep personnel requirements and human error at a minimum, but considerable good judgement is required to balance lead time estimates and adjust schedules as shop capacity and delivery problems arise.

One opportunity for economy frequently overlooked is to establish only one master bill-of-materials lists by joint effort of product engineering and production control. Usually this possibility is recognized, if at all, only after other conflicting procedures have been established. Subsequent re-drafting and modification of lists, and revision as engineering changes are processed, necessarily involve additional human error and resulting expense.

**PURCHASING** is charged with the responsibility of obtaining appropriate quality and delivery at the least possible cost, by buying the various raw materials, proprietary items, and services that are required. Although rigorously drafted specifications together with an accepted purchase order completely define the supplier's responsibilities, the buyer's legal rights are small comfort when specifications and/or delivery dates are not met. 100% integrity and rigorous adherence to specifications are not usual, so purchasing must know its suppliers and evaluate prices and promises against anticipated performance. Price alone is not an adequate criterion.

Quality control and production control have a strong influence on purchasing's ability to "educate" its suppliers, since a balance must be struck between the grievousness of deviations and the

time urgency involved in materials received. Where possible, substandard materials should be rejected. Ultimately suppliers will learn either to meet specifications or not quote, since manufacturing schedules frequently cannot tolerate the additional delays involved. A necessary corollary of rejecting deviated material is that specifications must have been realistic. This writer was told by one vendor, quoting on marking dies with a height tolerance of  $\pm .0000$ , that he knew  $\pm .002$  was meant, and that if he were to qualify his quote while others did not, he would risk losing the account.

**MANUFACTURING ENGINEERING** determines how parts and assemblies are to be manufactured. It also designs and fabricates tooling, establishes process sheets, conducts time and cost studies, and negotiates engineering changes for improved manufacturability or product performance. Establishment of tools and processing economically compatible with anticipated production quantities is a key activity in determining future profit or loss. High production tooling for small lots can be disastrously expensive, while tooling properly designed for limited production can increase manufacturing manpower requirements on large quantity production to the point that the resulting production is priced out of its market.

**MANUFACTURING** has, as its chief area of interest and difficulty, the effective use of its personnel and facilities to meet schedules while maintaining quality. Liaison with supporting departments (production control, quality control, manufacturing engineering, product engineering) is the second major activity involved.

**QUALITY CONTROL** assures that purchased and manufactured items meet their specifications, as established by the requesting department (for supplies) or product engineering (for raw materials and manufacturing output). Theoretically it serves a "policing" function, and does not exercise discretion. Either specifications are met or the item is rejected, subject to the possibility that a deviation may be established by the specifying authority. It is nevertheless an organizational error to have quality control under the manufacturing department, since manufacturing's interest in seeing its output acceptable necessarily biases the viewpoint of quality control personnel who know on which side their bread is buttered.

**ACCOUNTING** concerns itself with all the monetary aspects of the company's operations—past, present, and future. It functions chiefly as a keeper of records and as a forecaster of future requirements.

**THE LEGAL** department concerns itself with all the various legal relationships between the company and all others. Chief areas of concern are the Law of Corporations, Contracts, Taxation, Labor, and Patents. As with research and development, personnel of the legal department frequently have insular viewpoints, which fact may work to the company's detriment. Lack of understanding of engineering and manufacturing problems on the part of the legal staff result occasionally in costly contractual obligations that could have and should have been avoided.

## General Observations

An effective supervisor does no line work except as incidental to training.

Delegation of responsibility is vital to the morale and growth of subordinates.

One requisite to promotion frequently overlooked is the need to make ones self dispensable from his present position through systematization and delegation.

To function effectively, every employee must know the extent of his duties and responsibilities, and must be vested with appropriate authority.

Publishing of procedures and outlines of departmental responsibilities and relationships serves three important purposes—

1. The effort of compilation brings to light any logical and systematic deficiencies in the established operating rules.
2. It provides an operating guide for both old and new employees, settling incipient disputes and misunderstandings before they start.
3. By pinpointing responsibility, it makes difficult, if not impossible, the practice of hiding inadequate performance by "buckpassing."

Large conferences can be made much more effective and brief if each conferee has previously read an outline of proposed action and salient arguments. Time spent preparing such an outline is usually well invested.

"We have always done it that way" is no justification for continuing the practice in question, but also is frequently an indication that the practice should be restudied. "Why?" can be well answered if a questioned practice or procedure is well suited to the need it serves.

It has always seemed curious that proficient specialists, after many years of experience, are so frequently rewarded by promotion away from their specialties into administrative positions for which they may be only indifferently qualified.

# The Rarest Man in Business

by PERRIN STRYKER

A splendid executive is not necessarily a leader, and a great industrial leader may be a terrible manager. Here are some observations on the nature of leadership in business. This article will be included as a part of Mr. Stryker's book on the same subject to be published by Harper & Brothers in 1960.

■ ALMOST any time he turns around, an executive is apt to have someone challenge him to demonstrate leadership in his business or his industry. And he himself is likely to talk about leadership as something every good manager ought to demonstrate every day. But a leader is actually a rare bird, and it is no simple matter to recognize one. The great industrial leader is the rarest phenomenon of all. The recognition of him depends on many factors. What he does and what characteristics he displays have to be appraised in the light of economic and social progress and of his own objectives and motives, things seldom clearly seen by his contemporaries. Only with the aid of historical perspective is it possible to recognize the stature of a great leader of industry. Perhaps his clearest identification marks are these: (1) he has an innate propensity for change and innovation; (2) he manages to change men's beliefs, attitudes, and behaviors with benefit to many people. This may seem to be a surprising summation of leadership, and indeed it is far from the popular conception of what makes a leader. But as we shall see, leadership actually boils down to these main hallmarks.

The idea of leadership is frequently associated with personality traits. In preceding articles on executive qualities, *FORTUNE* has dealt with the traits of emotional stability, ambition, drive, initiative, judgment, fairness, and being "good with people." We have seen that there can be no standard list of executive qualities, that the development of one trait may stunt the growth of another; that a manager may be weak in some traits often considered "essential"—ambition, for instance—and still do an excellent job; that the manifestation of qualities may vary greatly from time to time in the same individual. In addition, the assumption that a good

executive, does develop a wide range of qualities seems quite justifiable, and it is also fair to assume that his competence increases with the number of qualities he develops and the degree to which he develops them.

But leadership is not the sum of any number of qualities. A man may be fair, utterly dependable, have excellent judgment and foresight, be bursting with drive and ambition, be an excellent manager of people, and still not be a leader.

## Is it sadism? Masochism?

Few words are used as loosely as "leader" and "leadership." Some businessmen simply add up all the well-known executive qualities and decide that if a man has them, he is a leader. Others seem to reserve the term for what they consider to be the best kind of management performance. Conversely, many people in and out of industry talk of "business leaders" as though such men were as common as experts, specialists, and management consultants. A store manager who has remained solvent for fifty years in his community is likely to be called a business leader. And so may be the president of a corporation: his company is big and successful—*ergo*, he is a leader.

The terms in which leadership is described today are often highly technical. Social scientists have been inclined to dismiss the idea that a leader is one of those richly endowed men who happen to appear on earth from time to time. The "Great Man Theory" seems to be too simple an explanation for sociologists and psychologists. Some of them, for instance, hold that leadership is the complex result of impersonal forces in groups and situations; others think leadership is the product of psychological pressures, such as anxiety or the sadism and masochism said to show up in those "authoritarian" types who feel compelled to dominate others.

In contrast to such elaborations is the oversimplified explanation ad-

vanced by many executives today to the effect that leadership is essentially a matter of motivating, persuading or otherwise influencing subordinates. President Eisenhower subscribed to this view when he defined leadership as "the art of getting somebody else to do something you want done because he wants to do it." His words bear the impress of the "human relations" doctrines that have pervaded management and generally reflect the thinking of many competent executives. It is true that a leader does manipulate, motivate, and influence others to accomplish his ends. But such techniques are simply part of the mechanics of his leadership; they are not what characterize him as a leader.

## The power to excite

A man may be a paragon of executive competence without being a great leader. A chief executive may have all the skills and traits needed to keep his corporation making profits and expanding in good measure; he may plan, coordinate, organize, maintain, and appraise excellently; but none of these capacities in itself will necessarily mark him as a leader. A leader may possess most of the qualities associated with good executives; or he may possess so few of them that he can be accurately labeled a wretched executive. An industrial leader has something far rarer than the capacity to manage, and he cannot be identified by his position or by the material success of his organization, or by the high opinion his associates may have of him.

An industrial leader may in turn seem brilliant, inarticulate, humanitarian, cruel, idealistic, flexible, obstinate; he can be a perplexing, contradictory mixture of good qualities and glaring defects impossible to add up.

Some men, although amply endowed with a propensity for change and innovation—the first important hallmark of leadership—are dominated by self-interest. There have been industrial "leaders" whose hunger for wealth and power led them to work changes that benefited themselves, but harmed others. This was the kind of leadership exhibited by Leland Stanford and other nineteenth-century railroad barons. While pioneering the spread of a new transportation system, they

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enriched themselves at its expense and left the system bankrupt.

Sometimes a leader heads directly toward the goal that stimulates him, cutting across current beliefs and traditions; at other times he may drive on an oblique, so that his eventual goal is not immediately ascertainable. But the true leader will always have a cause, perhaps a towering vision, that cannot be appreciated from its nether side, where others—practical, suspicious, or greedy—stand and watch. This sense of mission will often give him the look of a radical, a nonconformist. But the leader is not primarily a rebel. He is *for* something, and he aims ahead of others of his time.

What a great industrial leader does has the power to excite. His propensity for change and innovation can open fresh perspectives on the aims of industrial endeavor; boldness in embracing the new exposes the routine and the conventional, and makes others impatient with them. He will break loose from a comfortable job in order to gain more opportunity to effect change, to free himself from the subtle obstacles of security and familiar approval. He suspects continuity and repetitive success. And he is ready to risk not merely his company's temporary position but his own business reputation for long term gain.

The great leader in industry is usually well rewarded, but he sees his work as more important than his personal rewards or even the personal satisfactions he gathers from his work; or, to put it another way, the benefits derived from his work *are* his chief satisfaction and motive. He has a sense of service.

In all that he does, the leader manifests a rare kind of judgment, the kind that tells him what is out of true, and allows him to come rapidly to wise decisions on complex intangible issues between people and things. He isn't infallible, of course, and his judgment may be poor on investments and other practical matters. His special kind of judgment inevitably gives him a special self-confidence. The leader may not always feel certain, yet he knows his leadership will vanish with indecision, and he dares to guide others with the conviction that he knows the right direction better than they do.

### The rule-breaker

The history of American business is replete with legends of personal success that have been mistaken for industrial leadership. Two outstanding examples are Andrew Carnegie, whose canniness made him the first steel king, and John D. Rockefeller Sr., whose shrewd elimination of "waste-

ful competition" made him the first oil king. Both men amply illustrated the power of combined capital to increase production and profits, an innovation that certainly changed the character and direction of business practice. But both of these men also revealed plainly that they were dominated by self-interest. They later exhibited a "social conscience" in giving millions to philanthropic causes, and their gifts eventually benefited millions through education and science, but the returning of wealth to society, however admirable, is not an expression of leadership.

Then again, inventors and experimenters like Thomas Edison and Charles Kettering have led in the sense of being the first to devise mechanisms that millions wanted. But these men did not attempt to exercise industrial leadership.

Cyrus Hall McCormick, on the other hand, not only invented the reaper, but went on to other innovations in his determination to help the farmer move toward mechanization. His innovations in marketing alone—stable prices, written money-back guarantees, down payments, long-term credit, field tests—were a tremendous step forward. But after McCormick the First, the farm-equipment industry relapsed into inertia instead of trying to lead the farmer on with ever better machines. Nearly a century elapsed between the acceptance of McCormick's reaper in the 1840's and the acceptance of the light-weight farm tractor.

The man who eventually led the farmer to the tractor was Henry Ford I, who said, "My most constant ambition was to lift farm drudgery off flesh and blood and lay it on steel and motors. [But] I doubt that the light farm tractor could have been introduced on the farm had not the farmer had his eyes opened slowly but surely by the automobile." Ford, of course, did much more than open the farmer's eyes. Though he violated the rules of good executive behavior, his leadership was unquestionable: his determined development of the low-cost car and his introduction of the high minimum daily wage changed the character and direction of American business practice, indeed of American society.

### The risk-taker

The fame of Ford as a leader, of course, endures. A classic example of American industrial leadership not so well remembered is Theodore N. Vail of A. T. & T. Vail was slow in showing his capacity; an indifferent student who preferred to go "sporting" with the boys in New York, he tried

drug clerking, telegraphing, farming, and schoolteaching before settling at the age of twenty-four in Omaha as a Union Pacific mail clerk. He soon grew impatient with the grossly inefficient railway mail service. He started sorting the mail while en route and worked out from train and stage-coach schedules a detailed guide showing the quickest connecting routes. These feats caught the eye of the general superintendent of the railway mail service, who called him to Washington in 1873 and made him his assistant.

Vail at once set out to reform the whole U. S. mail service. He got the railroads to build and operate "fast mail" trains, which cut mail delivery time between major cities by as much as twenty-four hours; and he revolutionized the system of politically appointed postal clerks by insisting that candidates pass an examination, an innovation that foreshadowed civil-service standards.

In 1878, two years after Vail had become superintendent of railway mails, Alexander Graham Bell's father-in-law asked Vail if he would become general manager of the Bell Telephone Co. The little nine-month-old company was nearly broke and fighting for survival as Western Union sought to take over the telephone business. Vail gave up his secure \$5,000-a-year post for a job that offered him \$3,500—if the telephone company survived. Vail took the risk because he was a leader; he responded to Bell's vision of a great national telephone network, and he was moved to bring the vision to pass. In one all-night session he persuaded Western Union's lawyers to agree to stay out of the telephone business. Then he privately raised the capital needed to string the first long-distance telephone line (from Boston to Providence). His employers had refused to take this risk, but once Vail showed it could be done, the Bell company went into the long-lines business seriously.

In the next eight years Vail established the form, strategy, character, and direction of the Bell System as a "natural monopoly." He foresaw that the system could hold its dominant position by (a) licensing hundreds of local telephone companies; (b) controlling them through a network of long lines connecting every exchange; and (c) controlling all new telephone developments through operations of a manufacturing affiliate.

As this system flourished, Vail kept urging the Boston capitalists who owned the company to take smaller dividends and put more money into research and expansion. But the financiers ignored him; they considered him merely a hired hand, and would not

give him the command he needed as a leader. By 1887 Vail had had enough: "My present position in the company," he wrote, "is not such as I had hoped to attain, and is also in some ways embarrassing and unpleasant." He resigned.

During the next fifteen years Vail traveled widely. His flair for innovation soon led him to organize the electrification of Buenos Aires' street-railway system, and in Europe and Asia he helped establish lighting and telephone companies. He continued his old practice of investing in all sorts of patents and small companies that seemed to him likely to revolutionize their industries, and his business judgment was very poor, for nearly every one of these investments lost him money. But money was not his object.

Experimenting on his Vermont farm, Vail determined to make New England farming give more benefits to the farmer; he studied and applied modern agricultural methods and taught other farmers how to use their soil efficiently. He also organized an agricultural school to teach farm children practical farming.

But the challenge of the telephone business retained its grip on Vail. By 1902 A. T. & T. was suffering sorely from over-expansion, poor public relations, and competition from scores of small independent companies. That year, after a New York banking syndicate headed by J. P. Morgan & Co. had bought into A. T. & T., Vail accepted a place on the board. Five years later Vail was elected president at the age of sixty-two and given a free hand to direct the system. He at once raised some \$21 million of new capital and soon thoroughly revamped the company by cutting costs, reorganizing engineering and research, standardizing equipment, centralizing control, etc. In 1909 he got A. T. & T. to buy control of Western Union and proceeded to revamp its operations, inaugurating cheap night-letter service, reduced rates for deferred messages and cables, telephoned telegrams, etc. In 1913 the Department of Justice ruled that A. T. & T. had to give up its control of Western Union and also stop acquiring independent phone companies. Foreseeing that the pressure of public opinion might eventually force the government to take over the telephone system, Vail forthrightly ran counter to general business opinion and exhibited his leadership by proclaiming himself heartily in favor of government regulation of all public utilities. His business creed was clear: "The present way—private management and ownership, subordinated to public interests and under national control and regulation by

national, state, or municipal bodies—is the best." And after Vail's death in 1920 the "natural monopoly" he had built continued strong and profitable because his leadership had shown how to produce the best telephone system in the world.

### Who leads today?

This citing of some of the great industrial leaders in the past raises the question: who are the great leaders today? Certainly one of the real movers and shakers whose influence has been widely felt is Theodore V. Houser, recently retired (1958) chairman of Sears, Roebuck & Co. Houser developed and carried out his "balanced economy" plan for returning to rural communities some of the money that Sears' mail-order sales had long drawn from those communities. For every product Sears bought, Houser found out how *small* a plant could be and still produce that product efficiently. Then he helped local enterprisers set up such plants all over the U. S. In the Southeast, for example, Sears helped establish about 100 small plants, thereby approximately balancing Sears' purchases and sales in that area. In this way Sears improved the economic health of every community where it located a supplier. This innovation of relating production, purchasing, and sales to local economic health has benefited thousands, and could foreshadow major changes in American industrial practice.

Certainly, too, the Levitts—father Abraham and two sons, William and Alfred—have shown leadership. They have been responsible for major innovations in the housing industry. Particularly, they applied mass-production techniques to building low-priced houses with better design, more mechanical improvements and more sales appeal than other houses in their price class. The two mass-produced Levittowns (some 35,000 houses) built since 1947 are the joint product of the landscaping talents of the father, the financial talents of William, and the architectural talents of Alfred. The potential impact of the Levitts on American life is incalculable, comparable perhaps only to the impact of Ford.

Time, of course, is a determining factor in whether a man will deserve to be ranked as a great leader. There are many American executives today who are demonstrating great inventiveness and enterprise, and it may be that their policies and practices will indeed one day radically change the beliefs, attitudes, and behaviors of men so as to benefit many people. One such man is Donald J. Russell, president of the Southern Pacific. He said, "We're in

the business of supplying transportation to our customers, and if they leave us, we have an obligation to follow them." And by following them he has thrown over archaic railroad policies. He met competition from other forms of transportation by putting his company into both the trucking business and the pipeline business, and he cooperated with the airline in distributing air freight and selling airline tickets. Thus Russell has pointed the way toward a combination of systems that could revolutionize the transportation industry.

Another example would be Franklin J. Lunding, chairman of Jewel Tea Co., who has seriously practiced his unconventional beliefs about executive development, e. g., he has insisted—on pain of dismissal—that his managers refrain from giving orders and concentrate on serving as "first assistants" to their subordinates. The result of these policies is to reverse the old top-to-bottom flow of authority and responsibility, in effect turning the conventional organization chart upside down so that each manager is responsible for helping those he is in charge of. Obviously, Lunding is leading what could be a revolutionary attack on authoritarianism in management, which might have profound effects on industrial relations.

### Leaders vs. the system

Lunding is in the advance guard of an attack that has already had a deep effect on American management. He has taken a second and most significant step in an experiment that had its beginning in the late Twenties with two Harvard professors, Elton Mayo and F. J. Roethlisberger. In collaboration with W. J. Dickson, chief of employee-relations research at Western Electric's Hawthorne plant, they first scientifically explored the nature of the worker's relations with the corporation. The Hawthorne experiments established the fact that psychological satisfaction and security on a job were more important to the productivity of workers than good pay or good working conditions. Ever since, techniques for improving "human relations" in industry have multiplied copiously. The executive is not expected to exercise his authority from a pinnacle but to win cooperation by working on a level down with the troops; his job now consists more of placating, humoring, and helping employees, of making sure that they find satisfaction in their jobs.

Here is certainly a challenge to subtlety, humility, and to human understanding. And Lunding may come out bearing the stamp of a great leader

(Continued on page 30)

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# News Forum

**This department includes a digest of news and comment about Connecticut industry of interest to management and others desiring to follow industrial news and trends.**

♦ CHARLES K. RICHTER has been appointed export manager for The Stanley Works, New Britain, it has been announced by Richard T. Calmer, director of export sales.

Mr. Richter succeeds Gerald M. Cochran who will retire January 1 after 51 years of service with the company.

With his appointment, Mr. Richter assumes the supervision of the export department in New Britain, the export sales of the products manufactured in America and coordination of export sales of Stanley subsidiary companies in England, Germany and Canada.

♦ MITCHELL-BRADFORD Chemical Co., Milford, has announced a new "Activated" Black Magic for producing a black oxide finish on steel. This is the latest development in the line of Black Magic blackening processes and it is described as an extraordinary step forward in black oxide processing.

It is a new approach to a black oxide process because of its constant, automatic, self regenerating, decontaminating, catalytic action along with other vitally important and unusual characteristics.

As in previous Black Magic black oxide processes the new "Activated" Black Magic for steel is a single bath with one chemically balanced salt for

additions to the blackening solution.

♦ KENNETH R. TUTTLE, editor of *The Stanley World*, employee publication of The Stanley Works, New Britain, recently completed twenty-five years of service with Stanley and received his Quarter Century Club Pin and watch. He has been editor of the company publication for twenty years.

*The Stanley World*, one of the oldest employee publications, having its origin in 1917, is well known throughout the world, being exchanged with editors in England and India, and in this country.

Mr. Tuttle organized the Connecticut Editor's Association in 1941 and served as president for two years. The same year he was made a vice president of International Council Industrial Editors Association and a member of its Board of Governors. He is still active with both groups.

♦ WORKING ASSOCIATES of Clifford H. Warner, master gunsmith, toolmaker and precision machinist at Winchester-Western Division, Olin Mathieson Chemical Corporation, New Haven, honored him recently at a testimonial luncheon.

For Mr. Warner, who has helped with the research work on every Win-

chester rifle and shotgun developed since 1910, it marked the close of a 53-year career with the company. His retirement became effective at the end of the day.

♦ ALBERT S. REDWAY, president of Rockbestos Wire & Cable Co. Division of Cerro de Pasco Corporation, New Haven, has resigned that position, and Alexander S. Basil has been appointed vice president and general manager, it was announced recently by Robert P. Koenig, president of Cerro de Pasco Corporation.

Mr. Redway, who had been president of Rockbestos for four years, said that he was resigning for personal reasons. Before joining Rockbestos Mr. Redway had been president of American Paper Goods Company, Kensington, for five years. Previously he had been executive vice president of Geometric Tool Company, New Haven, and vice president of Farrel Birmingham Co., Ansonia.

Mr. Basil was appointed works manager of Rockbestos in July 1957 and in December of last year was made vice president-manufacturing.

♦ EUGENE C. NICHOLSON has been named eastern regional manager for Edwards Company, Inc., South Norwalk it has been announced by R. L. Kampton, marketing vice president. Mr. Nicholson had formerly been Los Angeles district manager for the 87-year old electrical manufacturer.

Mr. Nicholson will be responsible for sales of Edwards' control, communication and protection equipment throughout the New England, Middle Atlantic and East Central States. He replaced T. F. McCarthy, who was recently promoted to vice president in charge of market development.

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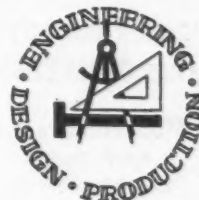
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♦ AT THE ANNUAL meeting of the Continental Engineering Corporation of Farmington, Leland D. Cobb was elected president and Arthur J. Wasley chairman of the board. Continental Engineering specializes in the research, design and development of new product inventions. A most recent development is a rubber seal innovation for ball, roller and needle bearings.

Mr. Cobb started his career with New Departure in 1928 upon receiving his Electrical Engineering degree from Pratt Institute. At New Departure he spent many years directing projects concerning testing lubrication and bearing applications. In 1947 he was appointed manager of research and development. Prior to that he was an executive engineer and later assistant to the division's general manager.

♦ GEORGE F. BARNES, who retired as owner and president of the Barnes Tool Co. last fall, died recently of a heart attack at the Quinnipiac Club, New Haven, where he has resided for the past two years.

Mr. Barnes was well known throughout the New Haven area as an industrialist and a civic leader. He served as president of the Barnes Tool Company for 61 years. His father, Elbridge Barnes, founded the company in 1885.

He was active in the Kiwanis Club, which he joined in 1917, and served the New Haven City Plan Commission for 12 years, retiring last February. He was also a member of the board of directors of the YMCA for 30 years.

Mr. Barnes is survived by four sisters.

♦ A NEW TYPE high-capacity hot extrusion press, recently installed by Lake Erie Machinery Corporation in the Scovill Manufacturing Company main plant at Waterbury, is said to be the largest single unit of its kind in the world.

Size and power of the new press alone are reported to permit an entirely new approach to brass and copper "tube shell" production. Much larger billets can be handled and both longer and heavier tube shells produced. The press is capable of processing almost twice the tonnage of metal previously handled on this type of equipment.

The 40-foot height of the press above the mill floor makes it a uniquely massive unit, even in an industry where large-scale equipment is commonplace. The bottom of the press is 45 feet below floor level—the equivalent of a two-story building with a couple of sub-basements.

When in full production, this new hot extrusion press is expected to satisfy a substantial part of Scovill's production demand for non-ferrous alloy

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The functioning of this material at the proper time and its reliability were important and fundamental to the successful functioning of the entire vehicle. Accordingly, thousands of tests are performed by Ensign Bickford to insure the reliability of the cords and the most careful inspection techniques are applied to the product.

♦ **FULLY INTEGRATED** data processing for under \$100 a month rental now is available as a tool in numerous manufacturing applications.

The system is built around Royal McBee's new Keysort Tabulating Punch. The machine is the first data processing tool that automatically code-punches and tabulates original records. The Tab Punch makes possible rapid, economical and accurate accumulation of data in many accounting and production jobs.

The basic document in the Keysort system is a card with coded holes built into its edges. These holes can be notched to indicate many factors—clock number, item and number, department, shift, machine, date or other production data.

The Tabulating Punch, when added to the basic Keysort system provides fully automatic accumulation of totals.

♦ **DURABLE** lightweight aluminum mop handles that are 22% lighter than wood, have been added to the Fuller Brush line of industrial cleaning and maintenance equipment. Finished in a hard gray anodized luster which resists chipping and scratching, they are available in two models: clamp type jaws (No. 7C-147) and springless solid grip jaws (No. 7C150), each in 54" and 60" lengths.

♦ **THE APPOINTMENT** of Earle L. Taylor as plant manager of Aerosol Techniques, Inc., Bridgeport, has been announced by H. R. Shepherd, president. Mr. Taylor, who has been assistant plant manager, will be in charge of all processing and maintenance at the aerosol filling company's recently expanded main manufacturing center.

With the company since its founding, Mr. Taylor was previously with Connecticut Chemical Research Corporation.

♦ **THE AMERICAN THREAD COMPANY** has appointed Raymond J. Fontaine, Jr. general merchandise manager of its spun synthetics division.

Mr. Fontaine will direct and coordinate all phases of the company's synthetic operations. John Connorton will have the responsibility of wool and spun synthetics buying while David Morgan will serve as sales representative.

♦ **JOHN A. COE**, chairman of the board of American Brass Company, Waterbury, has been elected a vice president of The Anaconda Company. The announcement was made by Clyde E. Weed, chairman of the board of The Anaconda Company, at a luncheon

sponsored by its subsidiary, The American Brass Company, and attended by a group of Naugatuck Valley businessmen and company executives.

Mr. Coe's election was described as a part of a plan for strengthening company management. Richard M. Stewart, president of The American Brass Company, has become chief executive officer of that subsidiary.

♦ **ROBERT S. ROGGE** has been appointed sales manager of the Illuminating Division of The Miller Company, Meriden.

He will head the Illuminating Division Field Sales Force and will be headquartered in Meriden. Mr. Rogge joined Miller in June, 1947 as an application engineer and has served in

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various field sales assignments for the past ten years. During the last four years he has been central regional sales manager with headquarters in Dearborn, Michigan.

♦ CONSTRUCTION of a major addition to the plant of the Eastern Steel and Metal Company, West Haven, has been completed. The 15,000 foot unit enlarges the entire Eastern plant to some 50,000 square feet.

Eastern Steel was founded in 1933, and has developed into one of the larger strip and sheet steel and aluminum warehouses in southern New England.

The new plant increases the storage facilities of the company to approximately 20,000 tons. Constructed of steel and concrete, it has two 40-foot bays, which extend 32 feet high and run the length of the 200-foot building. Loading and unloading will be serviced by the two 10-ton overhead traveling cranes.

♦ DEVELOPMENT of a new machine for marking manufacturer's identity or other information continuously into aluminum electrical mechanical tubing has been announced by The Noble & Westbrook Manufacturing Company of East Hartford, manufacturers of rapid production indenting marking equipment and marking tools.

The new Model 534 applies identical EMT markings permanently at one foot intervals along lengths of tubing in sizes from 3/8" O.D. to 2" O.D. In addition, it also marks at three radial locations, 120 degrees apart. Feed rate is variable from 175-350 feet per minute. A unique feature of the machine is the standard 18" scroll chuck with jaws modified to hold three roll die heads each of which accommodates a concave roll marking die. The marking dies are adjusted for various tube diameters by movement of the chuck jaws.

♦ COUSTIFAB (R), a new high

density, low-mass, sound and vibration attenuating material developed by the Cordo Chemical Corporation of Norwalk, is a flexible vinyl plastic sheet impregnated with metallic lead powder and backed with either woven glass-fiber cloth or cottonduck or other fabrics. It may also be obtained with a pressure-sensitive adhesive backing, making it easy to apply to metal and other surfaces.

The new product is suggested for numerous industrial applications such as linings for many types of noisy machinery housings, noise suppressor covers for pumps and compressors, with foams laminated to Coustifab for ceiling or cabin-wall coverings for aircraft and helicopters, dampening sound and vibrations in business machines and card punchers, in dictating equipment, wind tunnels, computers and office wall panels.

♦ HENRY D. TOWERS has been appointed vice president-manufacturing by the board of directors of Pratt, Read & Co., Inc., it has been announced by Peter H. Comstock, president.

Prior to joining Pratt, Read & Co., Inc. in 1956 as production manager, Mr. Towers was superintendent of the Uncasville plant of the Robert Gair Company for seven years. He served for two years as personnel manager at the Brooklyn, New York plant of Robert Gair after joining that company in 1947.

♦ FREDERICK R. KRABBE has been named senior sales engineer by Frederick Daggett, president of Flexible Tubing Corporation, Guilford. Mr. Krabbe will work out of the company's newly established Wichita, Kansas office.

Flexible Tubing manufactures spirally wound, reinforced, fabric flexible ducts for handling air, gases, fumes, many light solids, and liquids.

♦ A NEW, automatic single-unit photocopier was introduced by F. G. Ludwig, Inc., Old Saybrook, at the Na-

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tional Business Show held in New York recently. Highlight of the new photocopier is its unique "Seal Pak," a convenient, disposable sealed vinyl bag which contains the processing fluid.

Called the Contouramatic Mark II, the new machine, available in grey or red, is designed to be an attractive addition to the modern business office.

♦ **SETON NAME PLATE COMPANY** has recently moved to larger quarters at 50 Fitch Street in New Haven.

According to President F. R. Seton the move was made in order to enlarge production facilities for the increasing number of engraving orders which the company is handling for electronic instrument manufacturers throughout the United States.

♦ **THE GREATER Waterbury Industrial Development Corp.** made its first major step forward recently toward the establishment of Pierpont Industrial Park with the signing of land purchase contracts by John H. Payne, Jr., president of the corporation and Marion Pierpont, executrix of the Pierpont estate.

With the acquisition of the tract, the corporation will embark upon a campaign to raise the necessary funds for the development of the land for light industry.

The Greater Waterbury Industrial Development Corp., among other purposes, was founded to encourage industry to locate in the Waterbury area and to acquire land in order to facilitate diversified industrial development.

♦ **A SURPRISE DINNER PARTY** was given recently by the employees of The American Buckle Company, West Haven, in honor of their president, Robert J. Hodge, who celebrated his 80th birthday October 14.

The highlight of the evening was the presentation of a large birthday cake and gift to Mr. Hodge.

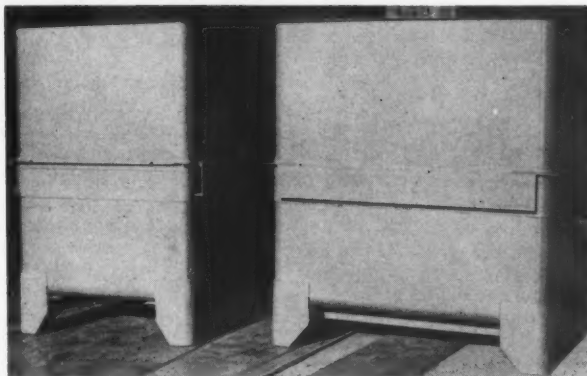
Mr. Hodge has been associated with the American Buckle Company for 43 years.

♦ **PURCHASE** of the Lacey Manufacturing Company, Inc., Bridgeport, tool and die fabricator, has been announced by The Barden Corporation, Danbury.

J. Robert Tomlinson, Barden president, said the acquisition will broaden Barden's operations by producing stamped metal ball retainers which it has been purchasing from Lacey for many years. These are important components of precision ball bearings.

Operating as a wholly-owned Barden subsidiary, the Lacey company will continue at its present location and will retain its present personnel of approximately 80.

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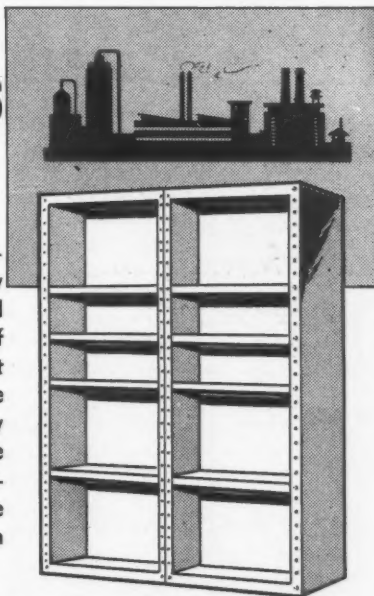
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♦ **ARTHUR J. SCHWENZER** has been appointed vice president-assistant to the president by the board of directors of Pratt, Read & Co., Inc., Ivoryton.

Prior to joining Pratt, Read in 1942, Mr. Schwenger was with the Equitable Life Assurance Company for 13 years. In 1946 Mr. Schwenger was appointed production planning manager at the Ivoryton company and was made factory manager in 1954.

♦ **PRODUCTION** of \$1 million worth of submarine detecting sets was started recently by the Singer Manufacturing Co., Bridgeport. The Navy contract will keep the plant's Military Products Division at peak operation until early 1961.

The equipment is planned for use in several types of Naval aircraft as an important part of the nation's submarine detecting system.

The military division is also engaged in research and development work for the armed forces and in the manufacture of other electronic and optical components for the missile and space fields.

♦ **ARMED FORCES** contracts awarded recently to the Connecticut Telephone and Electric Company, Meriden, doubled the backlog of orders to more than \$2.5 million, Harry R. Cox, executive vice president, announced recently.

The new orders, received from United States Signal Corps, call for the delivery of 620 communication test sets, 5,100 telegraph-telephone signal converters, and 1,400 telegraph terminals.

♦ **FOR THE SECOND TIME** in five years the Summit Finishing Co., Inc., Thomaston, is doubling its facilities to broaden its scope of operations. The company provides engineered precision industrial metal finishing in the fields of electronics, guided missiles, guidance systems, jet engines, computers, atomic energy, bearings and general manufacturing.

The present expansion, which was recently approved by the board of directors, includes 11,200 additional square feet of production space and 3,200 additional square feet of engineering and administration space.

The two-story addition will allow for greatly increased capacity of electroplating continuous strip and wire. Equipment to perform continuous plating, including pre-formed parts in coils, was developed two years ago by Summit engineers and technicians. Also planned for in the expansion program is a complete installation of timing equipment and wire.

The company has available on request a twelve-page brochure entitled "Quality Unlimited."

♦ **HENRY A. TRUSLOW**, president of Ponemah Mills, Taftville, was honored recently by directors of the Northern Textile Association at the group's annual meeting.

He was presented with a silver tray, with the signatures of the directors and inscribed "in appreciation of his leadership and services to the textile industry as president of Northern Textile Association from 1957-1959" Mr. Truslow was elected a director of the association after retiring as president.

♦ **ROBERT H. KEANE**, superintendent of industrial and labor relations for Landers, Plume and Atwood Corporation, Thomaston, has been named director of employee relations of Landers, Frary and Clark, New Britain.

Mr. Keane has had more than 15 years of experience in the labor and industrial relations field. He also has been superintendent of industrial and labor relations for the Plume & Atwood Manufacturing Company. Prior to this he handled labor and industrial relations, industrial engineering and sales promotion functions for the Cuno Engineering Corporation, Meriden.

♦ **WALTER S. ROSE** has been named sales promotion manager for the Baird Machine Co. of Stratford. He was formerly in the sales estimating department.

As sales promotion manager he will be in charge of advertising and sales promotional programs and the organization of distributor training programs.

♦ **MANUFACTURE** of transistors by production personnel has started in the new "controlled conditions" plant of National Semiconductor Corporation, Danbury, it has been announced by Dr. Bernard J. Rothlein, president.

Developed for low power level amplification in electronic equipment for missile, aircraft and industrial uses, the transistors now in production are the p-n-p silicon alloy "small signal" type. They meet stringent military qualifications for low noise amplification, low leakage, and stability under extreme environmental conditions.

♦ **FREDERICK R. DOWNS, JR.**, sales manager for Stanley-Humason, Inc. of Forestville, a subsidiary of The Stanley Works, was elected president of the New England Group of Spring Manufacturers at its recent annual meeting held in Bristol.

The organization is affiliated with

the National Spring Manufacturers Association, Inc.

◆ **EMIL H. BERGES, JR.** has been named marketing manager for The Abbott Ball Company, West Hartford, Wade P. Abbott, company president, has announced.

Mr. Berges was graduated from Brown University in 1949 with a degree in economics. From 1950 until joining Abbott he had served the Hinde & Dauche division of West Virginia Pulp and Paper as district sales manager for their Meriden plant.

◆ **SOME 5,000** new stockholders have been added to the list of The Southern New England Telephone Company's owners as the result of a recent 24 million dollar stock offering, it has been reported by G. Gordon Copeland, the company's financial vice president.

SNET now has more than 71,000 owners, of whom nearly 90 per cent are residents of Connecticut.

This was the sixteenth time since the end of World War II that the company had sold securities to finance its growth. The \$235 million thus obtained has enabled the company to increase the number of telephones it serves in this state from 510,000 in 1945 to 1,200,000 today. Direct distance dialing has been established for

most of the company's customers and many other service improvements introduced.

◆ The United States Post Office Department has given Pitney-Bowes, Inc., Stamford, a \$2,250,000 order for 75 automatic mail "facing and canceling" machines. It is said to be the department's first volume order for automatic mail handling equipment since it embarked on its program to install modern production methods in the world's largest postal operation.

The new "facer-cancelers," developed and produced by Pitney-Bowes, will eliminate one of the most costly and tedious post office jobs—the hand facing of letter mail bearing adhesive stamps. The new machine, according to Pitney-Bowes, eliminates hand facing by taking letters of any length just as they come, and facing and canceling them automatically at speeds up to 500 a minute.

◆ **RODMAN W. CHAMBERLAIN, JR.** has been appointed to the newly created marketing staff position of national account sales manager for The Stanley Works, New Britain. He will be responsible for administering sales programs for national accounts.

Mr. Chamberlain has been national account sales manager for Stanley Tools

since 1958. Previously he was a sales representative for Stanley Tools in the Wisconsin, Minnesota and upper Michigan territory and since 1955 has been product line manager for measuring tools.

◆ **SPERRY PRODUCTS, INC., Danbury,** which was acquired in late October by the Howe Sound Co. of New York City, has recently introduced a portable ultrasonic thickness gage, a unitized reflectoscope called the UM Reflectoscope, and a new ultrasonic flaw detector called the UI Reflectoscope.

The new portable ultrasonic thickness gage will be used for measuring thickness and inspecting corrosion in pipe, storage vessels, hull plates and other applications. Since it uses transistors and low voltage batteries, it is explosion resistant. No larger than a portable radio, it may be strapped to the operator's back and carried into confined areas.

The UM Reflectoscope features an economical building method that permits selection of only the necessary components for a testing job and provides a means for adding to instrumentation to meet increasing or changing testing requirements. It is approximately 7-1/2" high, 20" wide and 20" deep and weighs about 35 pounds. An



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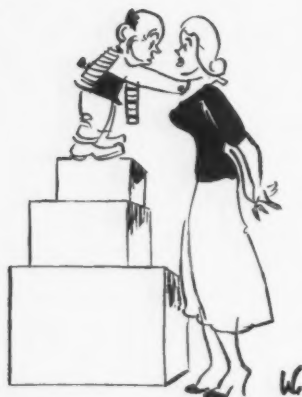
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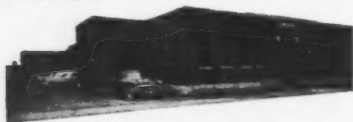
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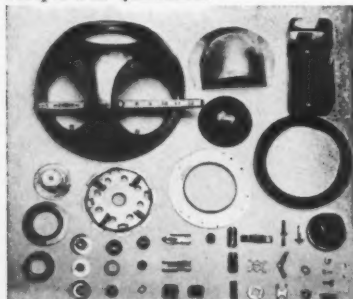
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attached handle permits the UM to be carried easily like a piece of luggage, and it can be folded to tilt the instrument in testing position for easy viewing.

The new ultrasonic flaw detector called the UI Reflectoscope is said to incorporate the most advanced technology in this field. It is compact and lightweight, and is suitable for both contact and immersed inspection. The full use of printed circuits and transistors has resulted in a versatile instrument with many capabilities that is yet small in size and easy to handle.

♦ **ARCHIE J. MACDERMID**, prominent Waterbury industrialist, recently sold controlling interest in MacDermid Incorporated, developer and manufacturer of metal finishing chemicals.

Under terms of the \$1,500,000 transaction, representing 31% of the outstanding stock, MacDermid sold 16,240 shares to 55 employees at a price of \$33.16 per share. His remaining holdings of 29,000 shares were purchased by the company at the same price. Eighty percent of the employees now own 72% of the voting stock.

MacDermid established the company in Waterbury in 1922 doing a local business in metal cleaning compounds. Since then the company has developed products which now include copper plating processes, stripping compounds, dry acid salts, chemical and electrochemical bright dips, chromate conversion coatings, and other metal finishing specialties.

♦ **NEARLY 20,000** employees and their families were the guests of Hamilton Standard, division of United Aircraft Corporation, Windsor Locks recently when the company's plants were opened for an Employees' Family Day.

The occasion was the first since the division's original plant was opened for inspection by employees' families in 1953, one year following its completion. A second plant almost as large as the first was built in Windsor Locks in 1957, and a quarter million square foot building was purchased at Broad Brook in 1954.

Charles M. Kearns, general manager, pointed out in his letter of invitation to the employees that the Family Day is part of the division's observance of its 40th anniversary this year since one of the division's two predecessor companies, Standard Steel Propeller Corporation, was incorporated in Pittsburgh in 1919.

At Windsor Locks the tour route took the visitors through both buildings to view typical operations in the manufacturing of jet engine controls and starters, air conditioning systems, hydraulic pumps, and aircraft propellers, and the division's experimental

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area, in which first editions of new products are built and tested.

At the company's Broad Brook plant the tour took employees and their families through the growing experimental and manufacturing areas of the Electronics Department, which was established as an autonomous organization September 1st. Currently employing approximately 600 persons, the department is developing and manufacturing a variety of electronic controls for Hamilton Standard and for other customers.

♦ **MORE THAN** 125 patents on items ranging from a tomato peeling machine to an automatic mortar batching device are described in the November issue of the Small Business Administration's "Products List Circular."

The monthly publication is designed to provide small business firms with additional sources of information on products and processes which may open new fields of opportunity for them. Information on both privately and Government-owned patents is carried in each edition of the circular. The privately owned patents are available for use through purchasing, licensing or other commonly used arrangements. Government-owned patents are limited to licensing only on a nonexclusive, royalty-free basis.


Copies of the circular are available without charge from the Hartford Office of SBA at 44 Gillett Street, Hartford, or from SBA branch offices in other areas of the country.

♦ **THE DEXTONE COMPANY**, New Haven has been awarded a contract by the R. R. Donnelley and Sons to furnish Mo-Sai Insulated Wall Panels for a new printing plant located at Old Saybrook, it has been announced by Louis L. Falco, Dextone's president.

Dextone will supply 320 wall panels 4'8" wide by 13'3" in height and each panel will weigh 1 and  $\frac{3}{4}$  tons. An interesting aspect in the construction is the fact that the curtain panels will be backed by lightweight concrete, thereby giving each panel an insulating value of .33 B.T.U. per square foot. No further interior finish is required.

♦ **VISITORS** to the National Business Show in New York recently were greeted by a display designed and produced by The Display Workshop, Inc., Hartford. The design submitted by Display Workshop was selected in national competition for the Center Theme of the National Business Show. The company also designed and built an actual radio station for Station WNEW and a press gallery for the United Press International.

The units constructed by the Hartford firm exemplify "Electronics in



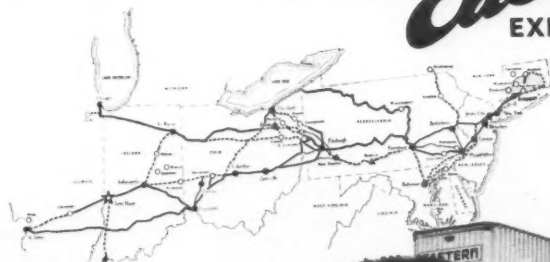
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Communications." The central theme piece, a design of concentric circles depicting communication or the travel of sound, hung at the head of the New York Coliseum's escalators. At its center, colored lighting effects alternately display the waving lines seen in an oscilloscope, the rising lines of a business graph and the silhouette of a businessman—symbolic of the show's theme.

Display Workshop, Inc. was formed twelve years ago by Harold P. Post, who had previously managed his own advertising agency in Hartford for many years. Today an experienced crew of designers, artists, cabinet makers, spray painters, electricians, silk screen printers, letterers, animation mechanics, work on exhibits which are shipped to every show of national importance and to many local exhibits.

The company has pioneered in the field of self-crating displays with its Fold N Pak and more recent Style-Pak.

◆ **HARRY SLOAN**, chairman of the board of The Cushman Chuck Company, Hartford, recently celebrated his sixtieth anniversary with the company. At a dinner honoring the occasion, directors and officers presented Mr. Sloan with an engraved silver tray and commemorative album relating the important part he played in the company's history and growth during his service. Also included are many photographs among which are of the first factory, groups of employees, and a chuck manufactured about 1876.

Mr. Sloan's permanent employment began with the company in 1899 as a workman in the factory. Two years later he was in charge of all drill chuck manufacture, and in 1914 he became superintendent and a director. In 1919, upon the death of E. L. Cushman, then president, Adrian Sloan became chairman of the board, Richard Cushman, president, and Harry Sloan, Adrian's son, first vice president. In 1928 Harry Sloan was elected to the presidency of the company. He held this office until 1952 when he became chairman and his son, the third genera-

tion, Harry E. Jr., was elected president.

◆ **THE TOOL and Die Industry** of Connecticut and Western Massachusetts, in cooperation with manufacturers and governmental apprenticeship agencies, will sponsor a competition in February to test the skills of fourth-year apprentices, according to John D. Dewhurst, president of Arrow Tool Company, Wethersfield, and chairman of the Apprenticeship Training Program of the National Tool & Die Manufacturers Association.

Prizes will be awarded to the six outstanding apprentices as well as the twenty-five top finalists. In addition, sponsoring companies of the winning entrants will be honored.

Firms throughout Connecticut and Western Massachusetts with an apprenticeship program registered with a public or private agency or eligible for such registration may enter their trainees in the competition. All entree nominations must be mailed no later than February 2, 1960, and should include a \$10.00 check from the sponsoring firm to cover the costs of operating the testing competition as well as prizes for the winners. Details concerning the competition may be obtained from the Central Connecticut and Western Massachusetts Tool & Die Association, 179 Allyn St., Suite 305, Hartford.

◆ **THE FLEXITRONIC** heat massager is a new product of The Iona Manufacturing Company of Manchester. First introduced at the 1959 National Housewares Exhibit in Atlantic City, the massager provides heat and a penetrating massage and is completely flexible.

The company reports wide use of the product for therapeutic application and for easing simple aches, pain and tensions.

The pad is encased in a soft orlon-cotton jacket, removable for washing. The control box is made of molded polystyrene with controls that permit massage with "lo" heat, massage with "hi" heat, heat only, or massage only.



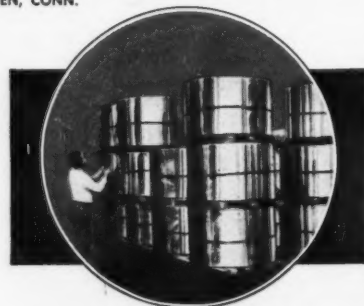
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By Fredrick H. Waterhouse  
Counsel

Are periods of layoff to be considered as "absences" in determining eligibility for vacation pay?

*Here's what happened.*

The labor agreement called for a stated number of hours' pay at average hourly earnings for employees who had been actively employed by the company for one year and more, immediately preceding the prescribed vacation date, without absences totaling more than thirty days during the previous twelve months. If an employee was absent more than thirty days but was otherwise eligible, his vacation pay was computed at a percentage of his straight time earnings during the previous twelve months. In computing vacation allowances the company considered time on layoff as "absent." The union claimed that layoff time should not be counted as "absences."

Is an employee "absent" during layoff?

The arbitrator pointed out that for a number of years the company, operating under similar clauses, had computed vacation allowances without including layoff time as "absences." The company claimed this was an error in the payroll department and violated specific instructions by the company. The arbitrator felt that the union had a right to require a continuation of such past practice. He pointed out that if the company had adopted its present interpretation the union might have sought a revision in subsequent negotiations, and so was entitled to have the previous practice continued.

When an employee on incentive work is permanently assigned to an hourly rated job, is he entitled to his average incentive earnings or the hourly rate of the new job?

*Here's what happened.*

Certain jobs were on incentive. Others were hourly rated as no incentive rates had been or probably would be established for them. Employees permanently assigned to the hourly rated jobs naturally received the rate for the job. Employees permanently assigned to incentive jobs were paid their average hourly earnings when temporarily assigned to fill in at the hourly rated jobs. The grievant was an incentive worker but had occasionally

filled in on the hourly rated jobs but had always been paid his average incentive earnings during such periods. The company then made what it considered was a permanent transfer of this employee to the hourly rated job and paid him at that hourly rate rather than at his higher average earnings earned while on incentive jobs. About ten days later he was transferred back to the incentive jobs and claimed he should have been paid at his average incentive earnings while on the hourly rated job. The company admitted that when incentive workers were temporarily required to fill in on hourly rated jobs they were paid their average incentive earnings rather than the hourly rate for the job. The company insisted, however, that when it made a permanent transfer it paid, and was only required to pay, the hourly rate for the job to which the transfer was made.

Does an incentive worker carry his average earnings along when transferred to an hourly rated job?

The arbitrator ruled that since the transfer lasted only for ten days it was not actually a transfer and so the employee was entitled to his incentive earnings during the time he filled in on the hourly rated job.

Is notice by the employee that he will be absent the day before a holiday sufficient excuse to qualify him for holiday pay when the contract

says he must work the full week to qualify?

*Here's what happened.*

The contract provided for holiday pay for named holidays, but required employees to be "available and ready for work" Monday thru Friday when the holiday fell on Saturday. The grievant took his vacation in March and when he returned he told the supervisor that he was taking off the following May 29th which was a Friday. The supervisor said nothing at the time but on May 26th it dawned on the company that May 29th was the day before a holiday. It then told the employee that if he took the 29th off he would not be eligible for holiday pay under the contract but he said he was going to take it off anyway. He did take off the 29th and so was not given holiday pay for the 30th. The union claimed he was available and ready for work as required but had permission to take the day off so was entitled to pay. The company pointed out that he was clearly warned he would not get holiday pay if he took off the day before the holiday and since he did not work Monday thru Friday he was not entitled to holiday pay.

Is notifying the employer you are going to take a day off considered sufficient excuse to treat it as a day worked?

The arbitration board had no difficulty in deciding that whether he had permission to be off or not is immaterial as the contract makes no provision for absences with permission. The contract is clear and specific in requiring a full week's work to qualify for holiday pay and he did not qualify since he was absent on Friday.

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# Public Relations

By Charles E. Reiche  
Public Relations Director

## Evaluating Public Relations

♦ SOME people have tried to spell out in their account books the dollars and cents assets of public relations. They know what it costs in terms of cold cash and thus they want to figure out in the same terms what it adds to their holdings. This, of course, is a futile exercise which, if you insist on practicing it, will lead to complete frustration.

There are yardsticks by which you can measure the pluses and minuses of a public relations program but it is difficult, if not impossible, to translate such plus and minus totals into dollars and cents. How, for example, do you assess the improvement in your community relations which can result from a practical PR program? Can you measure it in terms so precise as to fit a dollar sign? Very unlikely. Can you apply good stockholder or employee relationships to any plausible book-keeping practice? A dubious possibility, too.

But when we spend money on a public relations program we indeed have a right to expect that we can apply some gage to the program, some method of putting a value on it. One obvious way, of course, is to take a tape measure to all the material originated by our PR staffer and which is published in newspapers and magazines.

The way this is ordinarily done is to total the number of column inches any one story filled in the newspapers, strike an average of the advertising rates of the papers involved and then multiply the total number of inches by the average rate. Thus, if you think it makes any sense, we can say that such and such a story represents X thousand dollars worth of newspaper advertising space. This rather crude slide-rule operation, however, is something less than an accurate measure of our public relations success because it involves only the publicity side of our whole PR program.

If we will toss out the whole idea of trying to put a dollar sign on our PR effort, however, there are ways we can get a valid analysis of the effectiveness, or lack of it, of this effort.

For one thing, conversations with our community leaders—political, church, school, financial, retail and so on—will

indicate very quickly what our community status is and, more precisely, whether or not a planned public relations program is having the effect intended.

Further, conversation with our own employees will tell us to a degree, at least, what their attitudes are regarding the company. Considerable care and judgment must be used in this connection. We must be able to weigh very exactly the differences between the comments of employees who will tell us what we want to hear and the comments of those employees who are chronically "agin" the company. It is obviously naive to believe that all employees are both dispassionate and objective about the company for which they work.

Virtually the same method should be applied to all our publics. Both our customers and our suppliers will, if

questioned discreetly, probably give us a solid indication of where we stand with them and will also voluntarily or inadvertently show us ways in which our relations with them can be improved.

Our other important public, the shareowners, might best be queried by mail. It is quite true that shareowners are not an important public with many of our small, family-owned Connecticut industries. However, the majority of our stock companies are not so controlled and thus the shareowners are an important public.

A simple questionnaire sent to the stockholders asking them for opinions of the company and of ways to improve relations between it and them will undoubtedly be helpful and, more important, show just what your relations are with the shareowners.

Finally, we should pay close attention to the way our area news media—radio, TV and newspapers—treat us. Their attitudes are not always a solid indication of our public relations. In many cases they are simply an indication of the way a particular paper or radio station feels about us on a given day. Further, the news media can be relied on to ignore us or give us the "short end of the stick" in any controversy on which they and we are on opposite sides of the fence. The myth about impartiality and objectivity of the news media is just that—a myth. This

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is particularly true of many of the papers outside the metropolitan areas.

However, over the long run of weeks and months, we can judge quite well via treatment of our publicity by the media and particularly by the attitudes of the newsmen and newswomen themselves in our personal relations with them, approximately where we stand in the eyes of the whole community and region.

In general, then, the best way to evaluate our public relations program is to ask questions of our publics. Once we have the answers, we are then in a position to look at the cost of our PR work and to try to determine if the results justify the costs. This will be a perplexing and frustrating problem which can have as many answers as there are people studying the problem.

But so long as we don't make the mistake of trying to translate the results of our public relations activity into a hard-and-fast dollars and cents entry in the company books we can, sooner or later, come to an assessment of our activity; at least we can say that such-and-such has been accomplished and that it cost X dollars and that, finally, it is or is not worth what we paid. This last item, of course, is a matter of top management judgment pure and simple and thus must stand or fall on the common sense management can bring to its decision.

## Showplace of Ultra Precision

(Continued from page 1)

matic in-cycle gaging to prevent over-grinding.

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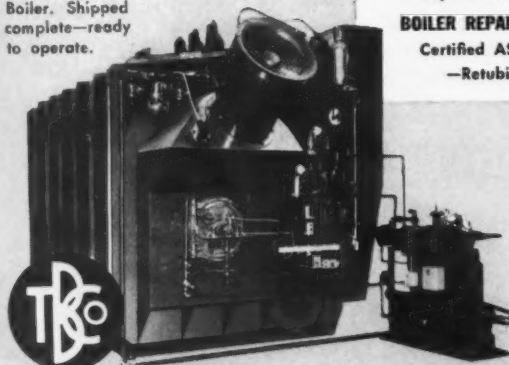
## The Rarest Man in Business

(Continued from page 14)

because of what he is doing to help develop executives who are skilled in human relations. At the same time, his policies and the other spreading policies about "human relations" in industry make it much harder for a potential leader to gain the command he must have in order to lead. In most big modern corporations he already must concentrate first on getting along with people, and more and more, if Lunding's policies become general, he will be expected to learn how to serve his subordinates. The great industrial leader who emerges from this system will unquestionably be a rare specimen.

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# Transportation

By John B. Hedges

Traffic and Export Manager

♦ AN interesting comparison of the economic well being of two major mediums of transportation was presented last month when the Interstate Commerce Commission released figures covering the first two quarters of 1959 for both rails and inter-city truck lines. The railroad's gross revenues had increased, 1959 over 1958 by 11.8% with a tonnage increase of 17.4%. The 900 inter-city Class I (over \$1 million gross annual revenue) motor carriers increased their tonnage handled by 18.1% but their total operating revenues had increased by 22.5%, while their net income after taxes had gone up by 297.3%. This startling increase in net income has been general throughout the country. Only four of over sixty Class I motor carriers domiciled in New England showed operating losses for the first two quarters of 1959 and most of them had operating ratios far better than anything they had seen in years. Many operators feel that the recession of 1958 forced them to tighten up their methods of doing business and that the increased efficiency is now paying off. Others point to the use of larger units, the expansion of business throughout the area and the increasing reliance of New England industry on motor carriage.

## Freight Trailer Use Expanding

The number of freight trailers riding the rails is increasing steadily. At the end of 1958 forty railroads throughout the country were offering one or more forms of trailer-on-flat-car service, usually referred to as "piggy-back." At the end of September of 1959 fifty railroads were hauling the freight trailers over their lines. Two years ago there were only two "plans" available: Plan I, which was the carriage of a motor carrier's trailer and Plan II, the handling of a railroad-owned trailer. Now there are three more. Plan III was instituted to provide flat charges for the handling of shipper owned trailers in piggy-back service, with the rails being responsible only for transportation. Shipper-owned or leased trailers are moved in pairs, usually with a mini-

mum weight of 70,000 lbs. for the pair and with some restrictions as to the commodities handled, although most charges are named in terms of "all freight." The next step was Plan IV. Here the shipper also furnishes the flat car and consequently enjoys a still lower rate. The latest is Plan V, in which rail carrier and motor carrier join in the publication of rates and the furnishing of service on a joint basis, so that a trailer loaded (rail or motor owned trailer) by a shipper moves over both services at a through rate.

The chief advantage of these various services is that they combine the flexibility of motor transportation with the long haul economies of rail service. Although no thorough and detailed cost studies have yet been made available to the public, it seems likely that in many cases it is cheaper for the railroad to place a trailer for loading than to switch in and pull out a box car. Certainly terminal delay is greatly reduced. Trailers dispatched from New Haven on Friday night trains for Chicago arrive in railroad yards there Sunday evening and are available for delivery on Monday morning. Regular carload traffic, on the other hand, may have to be switched around in the Chicago terminal area and may not be delivered until Tuesday. Both

shippers and railroads agree that claim damage is very substantially lowered by use of the piggy back service. At the end of September the I.C.C. reports that for that month alone trailer-on-flat-car traffic was up 44.7% over the similar period in 1958.

Many railroads apparently think it worth while to spend money on improving their facilities to attract this kind of business. The Pennsylvania Railroad invested \$300,000 in correcting low clearances through its Baltimore tunnels with the result that it is participating in a new Plan III arrangement with the Seaboard Airline Railway, the Atlantic Coast Line Railroad and the Florida East Coast Railroad to provide service to such Southern cities as Atlanta, Ga., Birmingham, Ala., Charlotte, N.C., Jacksonville, Miami, Orlando and Tampa, Florida.

Over the road inter-city truck lines are complaining about the level of rates charged by the rails on Plan III and Plan IV movements, saying that they constitute destructive competition. Before the Interstate Commerce Commission at the present time is a whole group of suspension and investigation cases touching upon that very issue. The rails maintain that the Transportation Act of 1958 does not require them to hold their rates up to the truck level and claim further that the slightly over 50¢ per car mile they receive from Plan III charges is desirable revenue. Demand for the specially equipped flat cars on which trailers are handled is such that their utilization factor is very high.

Strong proponents of the various trailer-on-flat-car plans claim that the ultimate answer will be containerization, with all forms of transportation using a standardized container which can be handled by any of them easily

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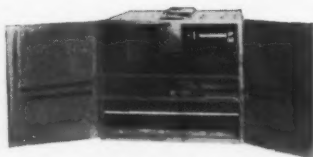
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and economically. The National Defense Transport Association has a special committee studying the feasibility of such a container and it is recommending a 20' x 8' x 8' box with proper fittings to permit handling in multiples of two or more. New cargo planes now on the drawing boards will probably be able to accommodate units of that size. Some predictions are made that within a ten or fifteen year period such containers on their flat cars will largely replace the standard box car.

## Shippers Cooperative Growing

At its first annual meeting in Hartford late in October the Charter Oak Shippers Cooperative Association, Inc. reinstated its original directors and added to their number with the election of John Blomgren, General Traffic Manager of the Sargent Co., New Haven and Clifford Pearson, Traffic Manager of Bridgeport Brass, Bridgeport. Reelected as officers were: Elliott Brauch, President, Supervisor of Warehouses, Burndy Corporation, Norwalk; Felix Szumlaski, Vice-President, Traffic Manager of Fafnir Bearing, New Britain; James B. Griffin, Treasurer, Director of Traffic, Scovill Manufacturing, Waterbury; and Henry J. Rogers, Secretary, Director of Traffic, Heublein, Inc., Hartford.

In his report to the membership President Brauch pointed out that the organization was doing something for Connecticut industry beyond the 15% saving they were enjoying on their freight movements to Chicago. Traffic which formerly moved via carriers domiciled in other states is now being handled in trailer-load lots by local truckmen to the New Haven loading ramp of the New York, New Haven and Hartford, which handles the shipments over the rails. This new business for local carriers, moving on good rates, contributes to their stability. Mr. Brauch also announced that the association was making definite plans to commence a similar operation to the West Coast soon after the first of the year. Membership, he said, had tripled within a three month period with twenty-seven members currently enjoying the benefits of this kind of cooperation.

## Century Old Shear: Symbol of PEXTO Quality

(Continued from page 5)

market, that has demonstrated an unchanging upswing in demand for Pexto machines and hand tools. That is the residential and commercial construction field.

One example of the many that could be given is the use of Pexto equipment by contractors for sheet metal duct

work. Pexto machines are used for forming and Pexto shears are used in the fabrication of sheet metal air conditioning and hot air ducts now being installed in new buildings across the country. Pexto products, of course, are used in many other ways by the building trades. The next time you see a piece of flashing being placed around a chimney, you can safely assume it has been cut on a Pexto Shear.

Another steady and ever-increasing user of Pexto products is the manufacturer of metal products. Many of these manufacturers are discovering that Pexto machines can duplicate parts much more economically than expensive press and die equipment. Also, they can do the job without a loss of accuracy.

## Pexto's Place In Education

The Peck, Stow & Wilcox Co. is proud of the part its products are playing in training young men to become skilled workers in American industry. In Junior and Senior High Schools, in Trade and Vocational Schools, in colleges, too, the fundamentals of sheet metal working are being taught on Pexto machines. These young men are being taught on the same kind of equipment they will use when they leave school.

Pexto engineers keep the student in mind when designing new machinery and tools. Each machine before its introduction must meet rigid specifications for simplicity and safety of operations, as well as meet standard requirements for production speed and precision accuracy. Pexto takes seriously the slogan, "Education is Everybody's Job."

Pexto is continually developing new products for both industrial and educational applications. Just recently the company released for sale the newly designed Box and Pan Brake, a machine that makes boxes out of sheet metal.

Such sturdy progress must have had a sturdy beginning . . . and it did. Thus, today, Pexto shows off a symbol of its early days: the old "No 1" Foot Squaring Shear, with a blade that is still free of nicks, with an operation that continues smooth and with a cut that remains amazingly accurate.

While this original shear is now retired, there are other old Pexto machines that remain on the job, as evidenced by orders from around the world calling for parts for sheet metal cutting and forming machines built and sold prior to 1900.

But old "No 1" shear is back home for good . . . a machine that was built strong to last long—one that is symbolic of the built-in workmanship that has been a distinguishing feature of Pexto's entire line of products down through the years.

# Business Tips

## Do It Yourself Insurance?

By C. H. SCOTT McALISTER

Instructor in Insurance  
School of Business Administration  
University of Connecticut

♦ "Would you tell me please, which way I ought to go from here?" That depends a good deal on where you want to get to," said the cat." This question, posed by Alice in Wonderland and answered by the Cheshire Cat, is currently being posed in similar form by corporate management with regard to self-insurance. Self-insurance deserves periodic consideration as a possible method of achieving maximum insurance benefit for the minimum dollar outlay. Should an existing program be modified or dropped, or should a self-insurance program be created where none previously existed? Questions of this nature must be raised and answered periodically.

Under certain conditions it may be possible for a risk to be insured without transferring it to an insurance company. When this is done, the plan is commonly called self-insurance. An important distinction must be made between a self-insurer and one who does not insure at all. Noninsurance is often confused with self-insurance. Noninsurance is *self-assumption* of risk. Self-insurance is providing for the reduction of risk in a scientific manner.

The requisites of a self-insurance plan are (1) a large number of homogeneous exposure units under one ownership, (2) with such exposure units being independent from one another in order to reduce catastrophic loss, and (3) financial strength sufficient to meet adverse loss experience and to maintain adequate reserves.

The operation of a self-insurance plan calls for the contribution to a fund of a regular periodic premium, scientifically calculated to pay losses when they occur. No company is totally self-insured in any given area until the insurance reserve fund has been built up to a size adequate to cover reasonable loss likely to occur. Until that point is reached, the company should provide adequate insurance through regular underwriters.

Insurable risks are carried by the insured himself with the object of reducing costs. Losses are not necessarily reduced by self-insurance, but one receives thereby any benefits that

may arise from the reduction of losses.

Often in large risks that are experience-rated (compensation and liability) commercial companies in effect say, "We will accept no risk from you. We will service your losses, but you must pay for them in full; and, of course, you must pay for our services besides." If the insured is able to perform these services (audit, claims administration, engineering and loss prevention) as efficiently as the commercial carrier can perform them, he may find attractive savings in a self-insurance program.

While there is a question as to whether or not a self-insurer can provide as complete a service as the commercial carrier, in many cases he can

provide this service more rapidly and efficiently with respect to his particular operation. This is of particular benefit in the area of claim investigation and settlement.

Another favorable consideration in most self-insurance programs is flexibility. The self-insurer is not bound by insurance policy terms and considerations. He may develop, consistent with sound accounting practice, such accounting measures as he sees fit to use. He may pay claims that would usually remain unpaid, if public relations or other considerations should so dictate. The self-insurer may insure to some extent risks that are normally considered uninsurable.

One disadvantage of self-insurance, particularly in Workmen's Compensation, is the lack of an impersonal claim service. A delicate situation is created between employer and employee when the employer denies a claim as a self-insurer. This same claim denied by the commercial carrier may not create the ill will that would otherwise be involved.

Self-insurance might create an additional income tax burden. Contributions to a self-insurance plan are not deductible as a business expense. Only losses paid from the fund are deductible. Premiums paid to commercial carriers are deductible for tax purposes in



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the year paid. Thus, with self-insurance the insurance deduction is seldom, if ever, constant, whereas it would be more so with commercial coverage.

Self-insurance without excess insurance may be very unsafe in the event of a catastrophe loss. Excess coverage may be difficult to obtain.

In the final analysis, the management of any self-insurance program will be an all important factor in its success. Quite often the failure of a self-insurance program may be laid directly at the door of those responsible for the management of such a program. Commercial carriers, on the other hand, usually have adequate insurance management. Today, there are insurance management consulting firms who specialize in the management of self-insurance programs on a fee basis. This may be used as a method of overcoming management shortcomings.

In conclusion, if a proposed self-insurer cannot expect dollar savings after having met the requisites of a self-insured program, nor show other unmeasurable benefits, he would do better to insure with a commercial carrier.

## Exhibitors Build Good Will at Connecticut Building

*(Continued from page 9)*

ers for which it wasn't even looking. Its primary motive in building its exhibit around the company's industrial brush division was to inform the public, already familiar with Fuller household brushes, of the company's broad diversification. Fuller Brush succeeded in this purpose but it also uncovered, as had Stanley, a number of prospects for its industrial brushes who had never visited the trade shows. In addition, among the 425,000 visitors there were persons who approached the Fuller exhibit manager with problems in their own industries analogous to those for which the printed circuit scrubber was designed. Result: Fuller Brush found some new uses to which its industrial brushes are adaptable.

Giant-Vac Manufacturing Company of South Willington reported that its own top benefit from participation in the exposition was the variety of new uses suggested by interested spectators.

## Customer Appeal and Good Will

The A. C. Gilbert line of American Flyer trains and space age science toys certainly won't be forgotten when some of the large-eyed youngsters who visited the exhibit write their letters to Santa Claus. However, it was the opportunity to talk face to face with thousands of its customers, past, present

and certainly future, that impressed one Gilbert official who spent many long but satisfying hours at the booth. "There are always those questions that they won't write about, but that they're glad enough of a chance to ask," he explained; and again, it was clear that the answers added up to greatly increased good will for the company.

Farm House Frozen Foods, baking its pies on the spot, intrigued both the eyes and the nostrils; and indeed, teased the sense of taste which it was unfortunately impossible to satisfy under the circumstances. In answer to direct questions, face to face, facts about the quality of ingredients and the care taken in the preparation of Farm House products carried a conviction and a persuasiveness difficult to duplicate in an impersonal advertising message. In the future, however, the ads will arouse memories of a fragrance that will add a Farm House item to the shopping list for the next trip to the frozen food counter.

## Non-Manufacturing Exhibits

Nine non-manufacturer exhibits rounded out the state's representation in the Connecticut Building. Listed among them were Idle Wild Farm of Pomfret Center, Erdin Organ Company, Connecticut Florists Association and Bristol Nurseries.

Finally, there was the exhibit of the Connecticut State Police including a Civil Defense display. People watched a series of rotating slides on the state trooper's training at the Police Academy at Bethany; they studied the collection of firearms used by the troopers; they gazed at a teletype clicking out messages from Police Headquarters to barracks and from barracks to headquarters; but what really fascinated them was the operating display of highway radar detection. A TV screen at the booth showed the traffic as it was being picked up by a camera mounted on a light pole on a nearby highway. As each vehicle approached, its radar-measured speed was recorded on an exact speed device beside the screen. Carefully selected troopers were present at all times to answer questions, and they most assuredly got questions—from crowds often six and seven deep.

Out of it all there came for the State Police as well as for every other exhibitor, better understanding and increased good will. If it had been otherwise, there would have been something wrong. To be able to meet face to face literally hundreds of thousands of persons and to talk to them about your product or your service—that is a rare public relations opportunity, the most direct possible way of creating good will.

# Accounting Hints

Contributed by

The Hartford Chapter National Association of Accountants

## Disclosure of Long-Term Leases

By GORDON W. TASKER, C.P.A.

Hartford, Connecticut

♦ WHAT information concerning leases should be disclosed in the Company's annual report to Stockholders? Reviewing a sample selection of reports, one can find in some reports complete information concerning the leases held by the Company for the rental and use of property. In other reports there is absolutely no mention made of leases. In todays business climate where the cost of borrowed money is considerably higher than it was a decade ago, and where leasing instead of ownership is becoming commonplace, it behooves us to consider the requirements for the disclosure of such information.

Rule 3.18 of Regulation S-X, which governs the form and content of financial statements required to be filed with The Securities and Exchange Commission under certain congressional acts, requires the disclosure of rentals or obligations under long-term leases where the amounts are material. Furthermore, the periods of payment thereunder are to be furnished along with any important obligation assumed or guarantee made in connection therewith. Research Bulletin No. 38, issued in 1949 by the American Institute of Certified Public Accountants, called for disclosure, under circumstances discussed therein, of long-term leases in the financial statements of lessees. Since that date we have all seen a tremendous growth in the amount and types of property falling under lease agreements.

What is the criterion to be followed in considering a lease as short-term or long-term? Some consider a lease long-term if it may not be terminated within one year from commencement; whereas, others consider a lease running three or more years as long-term.

It is a matter of judgment as to when the amount of an obligation under the terms of a lease is considered material. If we assume that an obligation equal to or in excess of five per cent of total assets or the annual rent in excess of five per cent of total expenses is material, then we have a guide. A

company may be a party to three individual long-term leases, the obligation under any one lease being less than five per cent of assets but the total of all three equal to five per cent or more. Disclosure of all three leases would be required by our yardstick.

What information concerning a lease should be furnished, assuming leasehold disclosure is considered pertinent? Certainly an indication of the property leased and the term thereof is desirable. Failure to indicate the annual rental amount and other obligations assumed or guaranteed does not enable the reader to evaluate the financial effect of the lease, so disclosure thereof should be considered necessary.

Consideration must also be given to disclosure of any other information concerning the lease, the omission of which might be considered misleading in view of the information furnished.

It is interesting to note in the twelfth edition of "Accounting Trends and Techniques," published by the American Institute of Certified Public Accountants which contain a summary of the accounting methods and presentation reflected in annual reports for 1957 of some 600 industrial and commercial corporations, that only 225 of the survey companies indicated the existence of long-term leases. Only 91 of these corporations provided in one degree or another the details of the leases, such as annual rent, term, number of leases, renewal options and other pertinent data. Are we to assume the obligations of the other 134 companies were not considered material? If so, why refer to or indicate the existence of the leases? However, I think it reasonable to assume that the obligations under the leases were significant and that disclosure of their existence was considered necessary. The balance of the company reports surveyed did not refer to or indicate long-term leases.

What form of disclosure is required or considered desirable? The information relative to leases has been disclosed predominantly through the medium



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of notes to financial statements as compared with the letter to stockholders or text portion of the annual reports. One must bear in mind that the footnotes to financial statements are considered an integral part thereof, while, as a general rule, comments made in the narrative section of the report are not. However, where a lease agreement is, in effect, an arrangement for the installment purchase of property, disclosure of such lease by means of a footnote is not considered appropriate disclosure. Under such an arrangement, proper accounting treatment and presentation requires the inclusion of such property in the assets of the company, as reflected in the balance sheet, and any unpaid obligation in connection therewith as a liability. The income statement would reflect a depreciation charge for the use of the property in the business instead of a rental fee.

It is conceivable that future accounting standards and principles will require that some portion, if not all, of the obligations and commitments of an organization under lease agreements be included among the liabilities as stated in the balance sheet. Such a requirement will undoubtedly receive more and more consideration due to the widespread use of long-term leases as a method of financing. One is aware that "Fixed Charges," as it applies to earnings summaries in relation to Form S-1 and Form S-9 of The Securities and Exchange Commission, is defined by the S. E. C. as including "an appropriate portion of rentals under long-term leases." Under the going-concern concept in the valuation of the financial position of a business, it perhaps is fact that many types of leases can be cancelled within a short period of time and the obligations thereunder terminated. However, one can assume that the lease covered the use of property necessary to the conduct of the business and, therefore, the use of similar property must be obtained in the event of lease termination. The use of similar property as a general rule can be obtained only through the acquisition of property by the medium of purchase or lease.

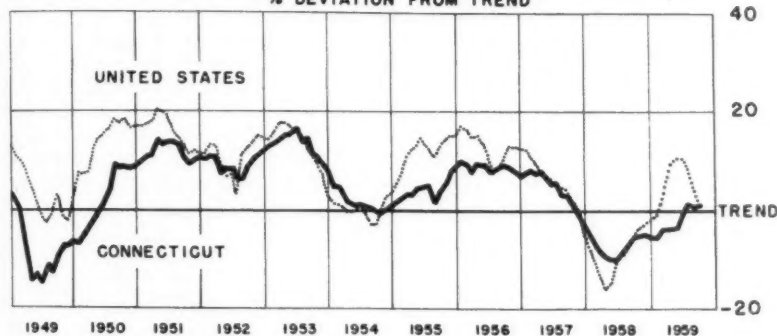
The purpose of financial statements is one of disclosure and hence the statements are only the vehicle for the dissemination of financial information. If financial statements better serve their purpose by the inclusion of lease obligations, or a portion thereof, among the liabilities instead of as a comment in the footnotes thereto, such presentation should be considered. The argument as to whether or not the obligations thereunder are, or are not, debt is secondary to the prime purpose of proper presentation of financial information.

# Business Pattern

A comprehensive summary of the ups and downs of industrial activity in Connecticut for the thirty day period ending on the 15th day of the second previous month.

## Business Up Slightly In September

INDUSTRIAL ACTIVITY—CONN. vs. UNITED STATES  
% DEVIATION FROM TREND



♦ THE nationwide steel strike temporarily has stemmed the upward trend experienced since June 1958 in the Index of Industrial Activity in Connecticut. In the last two months, gains in manufacturing and construction employment have just about offset decreases in hours worked and electric sales. For September, the Index was +1.2%.

Despite the recent leveling, the outlook for Connecticut, assuming no prolonged layoffs due to steel or other strikes, is for continuing moderate improvement through most of next year.

The United States Index has declined steadily during the record breaking strike and by September was down to +1%. The high point in the recovery from the recent recession was reached in May and June this year when the Index was over 10 points above trend.

### Work Stoppages

Connecticut has been affected less by the steel strike than the nation as a whole because relatively few Connecticut residents are directly employed in steel making. Lost time in the nation has increased sharply since the start of the strike in July. Time lost in Connecticut has risen only moderately and by September involved

3,000 workers. This was far from the peak of last April when 20 separate strikes kept 10,000 workers away from the job.

Strikes caused a loss of about 1.4% of total national work time in August this year compared with 1.5% in July 1956 at the peak of the then current steel strike. However, the 1956 shut-down affected only one month. The present stoppage will have kept lost time at a high level at least from July through early November.

### Gross National Product

Gross National Product decreased \$3.5 billion in the third quarter of 1959 to \$481 billion on an annual basis.

Because of the steel strike, business inventory buildup has been at a much reduced pace. In the third quarter, inventories grew at a \$1 billion yearly rate compared with a \$10 billion increase in the second quarter.

Exclusive of inventory accumulation, GNP increased at almost a \$6 billion annual rate in the third quarter. While this is below the \$10 billion annual growth for the second quarter it is, nevertheless, quite high in the face of the nationwide steel strike.

For the final quarter of this year,  
(Continued on page 52)

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And when my cash position's bad, a premium bill comes due;  
Suppose I made a claim and had forgotten to renew!"

2.



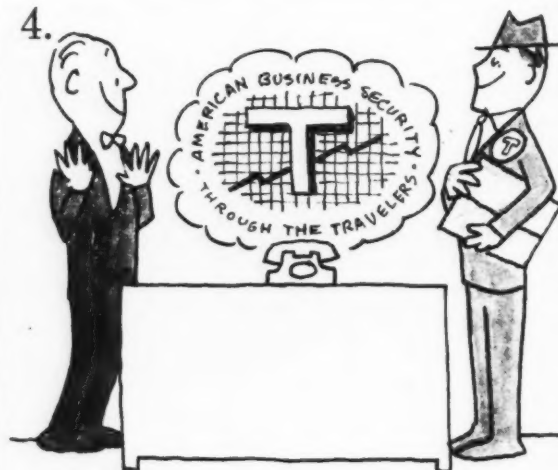
As if divining Dwyer's thoughts, a Travelers man appeared;  
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3.



"So far you've been Aladdin's genie," Dwyer answered then,  
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4.



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# Spotlight on the Future

Contributed by National Association of Purchasing Agents  
By Chester F. Ogden, Manager of Purchases  
The Detroit Edison Company

## General Business Conditions

The results of the steel strike are now being felt by most industry and in all areas of the country. We are facing an extended period of adjustment. Not only will it take time to get furnaces repaired and steel mills again operating at capacity, but it will also take time to replenish inventories to enable fabricators to get back to volume output. We have about reached the end of the line in maintaining production by imports, special purchases, swaps and other ingenious methods of bolstering thinning inventories.

Reflecting this situation, 24% of our members say their production is off from last month, (not since the Spring of 1958 have so many been in this category); 47% state there is no change, and 29% report increases.

New orders continue to be weaker than in many months with 28% reporting improvements, 45% no change, and 27% a decrease.

There is not much change in commodity prices, but the slight movement is upward—largely the result of premium prices for strike created short supply items. Employment to date has held up remarkably well. However, many believe we are just on the threshold of a rash of shortened work weeks, layoffs and shutdowns.

A cautious attitude is prevalent in buying policy and purchasing executives are maintaining a flexible position so that they can rapidly extend or contract commitments as the future business picture becomes more clear.

Inventories are again down. Our special question this month sought to determine the likely trend of purchased material inventories in the months ahead. Excluding steel items, it appears as if there will not be any general move to increase inventories with the settlement of the steel strike. 66% reported they would strive to hold purchased inventories at their present level, 19% will effect further reductions, and only 15% plan to add to their stocks on hand.

## Inventories

Steel and products made from steel constitute a substantial bulk of the purchased materials inventories of American industry. With no replenishment of these items, we would expect inventory balances to be low—and they are. October figures show the lowest balances for 1959. While 43% report no change from September, 42% say their inventories are lower. By far, most emphasize that steel is the basic reason for this. While there is some real concern over the critical steel situation, most buyers would not want to add substantially to their inventories of other than steel items at this time.

## Employment

In spite of the decline in gross national product figures, employment,

surprisingly, continues to hold at good levels. While this month's 24% who report less employment is up 5% from last month, it is still a long way from the 57% in this category during the low employment period of 1958. Again in October, 18% say they have more people employed than in the previous month. However, many believe we are right at the brink of a decline. They expect a rash of reduced work week hours, layoffs, and shutdowns in the immediate period ahead. This leads to much concern about the effect on holiday retail sales.

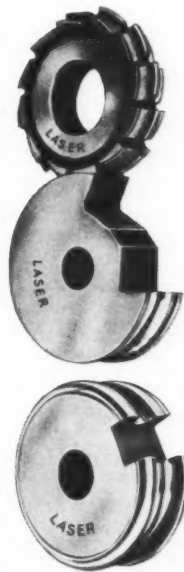
## Specific Commodity Changes

There are many more steel items on the critical list this month. The general steel situation has so monopolized our attention that price increases in other items are slipping by without the usual concern we might otherwise show.

On the *up* side are: Copper, lead, steel scrap, zinc, corrugated cartons, kraft paper, linseed oil, natural rubber, some electrical equipment and phthalic anhydride.

On the *down* side are: Turbine generators and some localized price breaks due to special circumstances are reported, but these are too scattered or few to report as trends.

In *short* supply are: An increasing number of steel items, chrome, coal chemicals and phthalic anhydride.



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(Composite opinion of purchasing agents who comprise the N.A.P.A. Business Survey Committee, whose Chairman is Chester F. Ogden, Vice President, The Detroit Edison Company, Detroit, Michigan)







# I T ' S M A D E I N C O N N E C T I C U T

<b>Deep Drawings</b> Stanley Pressed Metal Terryville Mfg Co The	<b>New Britain</b> Terryville	<b>Drafting Accessories</b> Joseph Merritt & Co	<b>Hartford</b>	<b>Electric Wiring Devices</b> Arrow-Hart & Hegeman Electric Co	<b>The Hartford</b>
<b>Delayed Action Mechanism</b> M H Rhodes Inc E W Cramer Company Inc The	<b>Hartford</b> Centerbrook	<b>Drawn Shells</b> Cly-Del Manufacturing Co.	<b>Waterbury</b>	<b>Electrical Appliances</b> Iona Manufacturing Company The	<b>Manchester</b>
<b>Demineralizers</b> Crystal Research Laboratories	<b>Hartford</b>	<b>Drill Presses</b> Townsend Mfg Co The H P	<b>Elmwood</b>	<b>Electrical Conduit Fittings &amp; Grounding Specialties</b> Gillette-Vibber Company The	<b>New London</b>
<b>Design</b> Designers for Business and Industry (product design-appearance)	<b>New Haven</b>	<b>Drilling Machines</b> Howe & Fant Inc (Turret Type)	<b>East Norwalk</b> West Hartford	<b>Electrical Connectors</b> Burndy Corporation	<b>Norwalk</b>
<b>Design &amp; Drafting Service</b> Smith & Winchester Mfg Co The	<b>South Windham</b>	<b>Drilling and Tapping Machinery</b> Hartford Special Machinery Co The	<b>Hartford</b>	<b>Electrical Control Apparatus</b> Plainville Electrical Products Co The	<b>Plainville</b>
<b>Diamonds—Industrial</b> Parsons Diamond Products Inc	<b>West Hartford</b>	<b>Drop Forgings</b> Atwater Mfg Co Billings & Spencer Co The Consolidated Industries Wilcox Crittenden & Co Inc	<b>Plantville</b> Hartford West Cheshire Middletown	<b>Electrical Controls</b> Monarch Electric Co (Allis Chalmers)	<b>New Britain</b>
<b>Dictating Machines</b> Dictaphone Corporation Gray Manufacturing Company The SoundScriber Corporation The	<b>Bridgeport</b> Hartford New Haven	<b>Druggists' Rubber Sundries</b> Seamless Rubber Company The	<b>New Haven</b>	<b>Electrical Recorders</b> Bristol Co The	<b>Waterbury</b>
<b>Die Cast Dies</b> C & F Tool & Die Corp	<b>Bridgeport</b>	<b>Duplicating Machines—Automatic</b> Pratt & Whitney Co Inc	<b>West Hartford</b>	<b>Electrical Relays and Controls</b> Allied Control Co	<b>Plainville</b>
<b>Die Castings</b> Newton-New Haven Co Inc Stewart Die Casting Div Stewart-Warner Corp	<b>New Haven</b> Bridgeport	<b>Dust Collectors</b> Colonial Blower Co Ventilating Supplies Inc	<b>Plainville</b> Plainville	<b>Electrical Switchboards</b> Plainville Electrical Products Co The	<b>Plainville</b> Simsbury
<b>Die Casting Dies</b> ABA Tool & Die Co Eastern Machine Screw Corp The Weimann Bros Mfg Co. The	<b>Manchester</b> New Haven Derby	<b>Elastic</b> Russell Mfg Co (rubber shock cord—all sizes and types)	<b>Middletown</b>	<b>Electrical Test Equipment</b> McNeal J D	<b>New Haven</b>
<b>Die Heads—Self Opening</b> Eastern Machine Screw Corp The Geometric Tool Division, Greenfield Tap & Die Corp	<b>New Haven</b> New Haven	<b>Electric Cables</b> General Electric Company (for residential, commercial and industrial applications)	<b>Bridgeport</b>	<b>Electrical Wiring Systems</b> Wiremold Co The	<b>Hartford</b>
<b>Die Polishing Machinery</b> Hartford Special Machinery Co The	<b>Hartford</b>	<b>Electric Cord Springs</b> Bristol Spring Manufacturing Co	<b>Plainville</b>	<b>Electronic Parts</b> Patent Button Company The Prentice Mfg Co The G E (stampings to customers' specifications) Terryville Manufacturing Co (Stampings to customer specifications)	<b>Waterbury</b> New Haven Kensington Terryville
<b>Die Sets</b> Producto Machine Company The Union Mfg Co (precision, steel and semi-steel)	<b>Bridgeport</b> New Britain	<b>Electric Cords</b> General Electric Company Rockbestos Products Corp (asbestos insulated)	<b>Bridgeport</b> New Haven	<b>Electronics</b> Beau Electronics Gray Manufacturing Company the McNeal J D Middletown Mfg Co (metal cabinets, chassis panels, brackets, cases) Ripley Co Sturup Larabee & Warmers Inc Vineo Electronics Corporation	<b>Waterbury</b> Hartford New Haven Middletown Middletown Middletown New Haven
<b>Die Sinks</b> Pratt & Whitney Co Inc	<b>West Hartford</b>	<b>Electric Eye Control</b> Ripley Company Inc	<b>Middletown</b>	<b>Electroplating</b> Giering Metal Finishing Inc National Sherardizing & Machine Co Waterbury Plating Company	<b>Hamden</b> Hartford Waterbury
<b>Dies</b> Hoggson & Pettis Mfg Co The Mitrametric Co The (ground for gears)	<b>New Haven</b> Torrington	<b>Electric Fixture Wire</b> Rockbestos Products Corp (asbestos insulated)	<b>New Haven</b>	<b>Electroplating—Equipment &amp; Supplies</b> Apothecaries Hall Company Division	<b>Waterbury</b> New Haven
<b>Dies &amp; Die Cutting</b> Douglas Co Geo M	<b>New Haven</b>	<b>Electric Hand Irons</b> Winsted Hardware Mfg Co (trade mark "Durability")	<b>Winsted</b>	<b>Enthone Inc</b> Hubbard Hall Chemical Company The	<b>New Haven</b> The
<b>Display Containers</b> National Folding Box Co Div Federal Paper Board Co Inc (folding paperboard)	<b>New Haven and Versailles</b>	<b>Electric Heating Elements</b> Hartford Element Co	<b>Hartford</b>	<b>Len Manufacturing Co The</b> MacDermid Incorporated	<b>Waterbury</b> Waterbury
<b>Displays—Design &amp; Production</b> Ad-Craft Displays, Inc. Conn-Craft Co. (Plastic) Stifel & Kufta	<b>Bloomfield</b> Waterbury New Britain	<b>Electric Ignition Harnesses</b> General Electric Company	<b>Bridgeport</b>	<b>Electroplating Processes &amp; Supplies</b> Enthone Inc	<b>New Haven</b>
<b>Display Equipment</b> Folecats Inc	<b>Old Saybrook</b>	<b>Electric Insulation</b> Case Brothers Inc Stevens Paper Mills Inc The	<b>Manchester</b> Windsor	<b>Electrotypes</b> Barnum-Hayward Electrotpe Co Inc Lockwood Sons Inc Wm H New Haven Electrotpe Div	<b>New Haven</b> Hartford New Haven
<b>Displays—Metal</b> Durham Mfg Co The (Designing & Mfg to customers' specifications) Merriam Mfg Co (Contract Work to Individual Specifications) Parsons Co Inc W A (custom designed)	<b>Durham</b>	<b>Electric Lighting Fixtures</b> Fan-Craft Mfg Co (residential, church, post lanterns) Plume & Atwood Mfg Co The Wasley Products Inc	<b>Plainville</b> Thomaston Plainville	<b>Elevators</b> Eastern Elevator Co (passenger and freight) General Elevator Service Co	<b>New Haven</b> Hartford
<b>Displays—Plastic</b> Dura Plastics of New York, Inc.	<b>Westport</b>	<b>Electric Motor Controls</b> Arrow-Hart & Hegeman Electric Co The	<b>Hartford</b>	<b>Enameling</b> Giering Metal Finishing Inc Waterbury Plating Company	<b>Hamden</b> Waterbury
<b>Door Closers</b> Sargent & Company Yale & Towne Mfg Co The	<b>New Haven</b> Stamford	<b>Electric Motor Repair</b> B & J Electric Co	<b>Ansonia</b>	<b>Enamels &amp; Lacquers</b> Dobbs Chemical Co The (industrial finishes to customers' specifications)	<b>New Haven</b>
<b>Doors</b> Bilco Co The (metal, residential and commercial)	<b>West Haven</b>	<b>Electric Motors</b> Electric Specialty Co Iona Manufacturing Company The Monarch Electric Co (Allis Chalmers)	<b>Stamford</b> Manchester New Britain	<b>End Milling Cutters</b> Pratt & Whitney Co Inc (carbide and HSS)	<b>West Hartford</b>
<b>Dowel Pins</b> Allen Manufacturing Co The Hartford Machine Screw Co Div of Standard Screw Co Holo-Krome Screw Corp The Torrington Co The	<b>Hartford</b> Hartford West Hartford Torrington	<b>Electric Motor Windings</b> Monarch Electric Co (3 phase industrial motors)	<b>New Britain</b>	<b>End Mills</b> Atrax Company The (solid carbide)	<b>Newington</b>
		<b>Electric Switches</b> Arrow-Hart & Hegeman Electric Co The	<b>Hartford</b>	<b>Engraving—Plastic and Nonferrous Metals</b> Conn-Craft Co. New England Engraving Company Div. of Dura Plastics of New York, Inc. Salisbury Products Inc	<b>Waterbury</b> Westport Lakeville
		<b>Electric Time Controls</b> Cramer Controls Corporation The	<b>Centerbrook</b>	<b>Envelopes</b> Curtis 1000 Inc United States Envelope Company Hartford Division	<b>Hartford</b> Hartford
		<b>Electric Underfloor Duct System</b> General Electric Company	<b>Bridgeport</b>	<b>Excelsior</b> Nielsen & Sons Inc John R	<b>South Windsor</b>
		<b>Electric Wire</b> General Electric Company Rockbestos Products Corp (asbestos insulated)	<b>Bridgeport</b> New Haven	<b>Extractors—Tap</b> Walton Company The	<b>West Hartford (Advt.)</b>

















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## Business Pattern

(Continued from page 37)

GNP is estimated at \$490 billion annually. This is somewhat below earlier estimates because of the lengthy steel strike and assumes that the work stoppage will end shortly. With no interruptions in steel production, GNP is expected to exceed a \$500 billion annual rate in the first half of 1960.

## Capital Spending

Further anticipated growth in business spending for new plant and equipment is an important factor in the projected increase in GNP.

It is now estimated that capital spending for 1959 will exceed \$33 billion. This is 9% above last year, but 10% below the record year of 1957.

Increases are planned by all major business categories except electric and gas utilities. More of the spending will be for modernization to improve efficiency rather than expansion of production facilities. Next year is expected to surpass 1959 and top the record \$37 billion of 1957.

## Military Spending

For most of the period since the start of the Korean War Connecticut has led all other states in per capita military contract awards.

Both Connecticut and national awards decreased from 1956 to 1957, but contracts to our state continued to drop in 1958 despite improvement nationally. This reflects the change in defense emphasis from manned aircraft to missiles. Consequently, the transportation equipment industry, our largest manufacturing segment, continues to operate below its mid-1957 level.

In the first half of 1959 the story was quite different. Contracts totaling \$678 million were awarded to Connecticut firms representing, on a per capita basis, the highest level since the first half of 1956. This sharp improvement tends to firm our economy and should help maintain the upward trend underway since mid-1958.

## Labor Turnover

The accompanying chart shows the impact of the recovery on Connecticut labor turnover rates. Early in the recession, hirings dropped and separations rose as manufacturers cut their payrolls. This caused a large excess of separations over hirings through May 1958. Since then, hirings have been above separations in every month but one as factory employment increased by 20,000. The present pattern of more hirings than separations should continue well into 1960.

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Visual comfort in Casco's drafting area is supplied by 150 footcandles of general overhead lighting. Drafting board lamps boost output to 250 footcandles on work surface.

more  
lighting  
*gets better results...*

**T**HIS LIGHTING SYSTEM in the recently renovated engineering department of Casco Products Corporation, Bridgeport, illustrates the trend by progressive Connecticut industries toward higher lighting levels. Properly designed fluorescent lighting assures Casco's product and tool designers excellent seeing conditions over prolonged periods, with a minimum of eye fatigue.

Higher illumination levels help industry increase productivity, improve workmanship and provide pleasant working environment. The Illuminating Engineering Society has new lighting standards, based on 10 years of research and tests, recommending more lighting for various industrial operations. Consult your electric utility company about the new IES lighting standards.

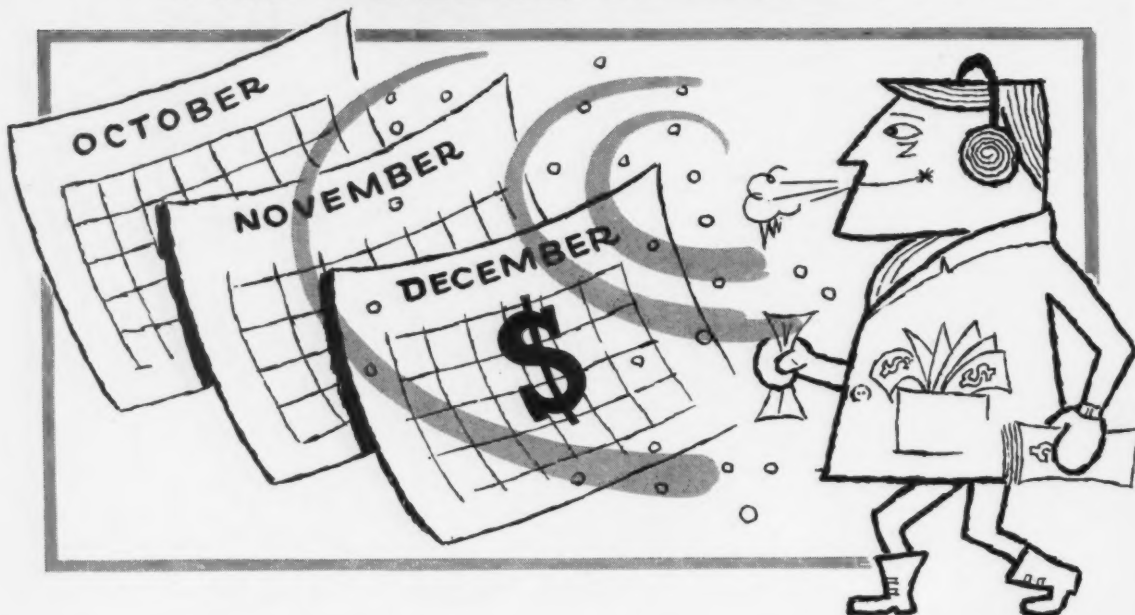
THE CONNECTICUT LIGHT AND POWER COMPANY

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